P-A STACKS

OCTOBER 1982 NUMBER 458 -- Part II

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Solar-Geophysical Data comprehensive reports

Data for April 1982 & Miscellanea

Explanation of Data Reports Issued as Number 450 (Supplement) February 1982

LATE DATA **Pages 41-43**

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Solar - Geophysical Data

NO. 458 OCTOBER 1982

Part II (Comprehensive Reports)

DATA FOR
APRIL 1982

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SOLAR-GEOPHYSICAL DATA

No. 458

Issued in two parts

Helen E. Coffey, Editor

Joe H. Allen, Chief
Solar-Terrestrial Physics Division

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SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

APRIL 1982

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
01	410	LEAR	43	NS	0154.0	0155.1	186.0	21.0			QL=6 ST=2 TYP=1
	610	LEAR	43	NS	0308.0	0310.8	112.0	52.0			QL=6 ST=2 TYP=1
	33	UPIC	43	NS	0619.0	1248.4	390.0D				
	29	UPIC	43	NS	0619.2	1248.6	390.2D				
	260	ONDR	44	NS	0625.0E	1152.0U	463.0D	3.0U			
	245	LEAR	43	NS	2248.0	2259.8		189.0			QL=6 ST=2 TYP=1
	3750	TYKW	20	GRF	0100.0	0123.7	60.0	4.0	1.5		
	9400	TYKW	20	GRF	0110.0	0125.0	40.0	4.0	2.0		
	9400	TYKW	21	GRF	0218.0	0231.0	60.0	6.0	3.0		
	3750	TYKW	45	C	0218.5	0219.9	2.5	13.0	5.0		
	9395	PEKG	20	GRF	0219.0	0219.3	17.0	6.6	2.7		
	9400	TYKW	5	S	0219.0	0219.6	2.0	5.0	2.0		
	2840	PEKG	1	S	0219.0	0219.8	2.0	16.6	1.9		
	2000	TYKW	45	C	0219.0	0219.8	2.0	5.0	2.0		
	3750	TYKW	29	PBI	0221.0		12.0	2.0	1.0		
	610	LEAR	8	S	0305.5	0305.6	.1	40.0			QL=6 ST=2 TYP=3
	3750	TYKW	20	GRF	0307.0	0350.0	115.0	3.0	1.5		
	2000	TYKW	21	GRF	0310.0	0355.0	160.0	2.0	1.0		
	2000	TYKW	5	S	0310.3	0310.7	2.0	1.5	.5		
	15400	PALE	8	S	0404.5	0406.1	2.0	41.0			QL=5 ST=2 TYP=3
	9100	GORK	20	GRF	0429.8	0559.5	130.0U	11.0			
	3750	TYKW	20	GRF	0520.0	0535.0	32.0	2.0	1.0		
	3750	TYKW	45	C	0555.0	0557.1	4.0	9.0	5.0		
	2000	TYKW	5	S	0556.0	0557.2	5.0	3.0	1.0		
	2950	GORK	2	S/F	0556.2	0557.0	2.0	7.6			
	9400	TYKW	20	GRF	0556.5	0557.8	35.0	9.0	3.0		
	2840	PEKG	1	S	0556.5	0558.0	3.5	5.7	1.6		
	2950	GORK	29	PBI	0558.0	0558.3	14.5	4.3			
	3750	TYKW	29	PBI	0559.0		35.0	5.0	2.0		
	410	LEAR	4	S/F	0746.0	0747.1	2.8	15.0			QL=6 ST=2 TYP=3
	9100	GORK	2	S/F	0746.0	0751.4	6.3	6.0			
	3750	TYKW	5	S	0749.3	0749.7	2.5	3.0	1.0		
	2950	GORK	1	S	0842.7	0843.6	2.2	2.2			
	430	KRAK	42	SER	0920.2	0921.2	3.8	560.0D			
	536	ONDR	40	F	0920.2	0921.8	2.2	88.0	11.0		
	610	LEAR	47	GB	0920.3	0920.6	1.5	130.0			QL=6 ST=2 TYP=5
	410	LEAR	47	GB	0920.3	0921.6	1.3	239.0			QL=6 ST=2 TYP=5
	930	BORD	41	F	0921.2	0921.3	.8	99.0	2.0		
	245	LEAR	8	S	0950.5	0950.6	.1	42.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0950.5	0950.6	.1	10.0			QL=6 ST=2 TYP=3
	610	LEAR	8	S	0950.5	0950.6	.1	15.0			QL=6 ST=2 TYP=3
	2950	GORK	21	GRF	1057.0	1110.5	59.0	9.9			
	3000	POTS	29	PBI	1106.0	1108.4	49.0	13.0			
	9400	POTS	20	GRF	1106.0	1116.4	77.0	17.0			
	9100	GORK	22	GRF	1106.6	1119.9	54.0D	18.0			
	2950	GORK	1	S	1107.9	1108.3	1.2	7.7			
	536	ONDR	40	F	1111.5	1113.7	4.9	18.0	13.0		
	3100	CRIM	20	GRF	1149.0	1158.5	48.0	12.0	4.0		
	2800	OTTA	20	GRF	1215.0	1450.0	225.0	4.8	3.8		
	930	BORD	41	F	1440.0	1440.5	.7	37.0	2.0		
	8800	SGMR	8	S	1506.3	1506.5	.2	33.0			QL=6 ST=2 TYP=3
	9400	HUAN	20	GRF	1513.4	1537.0	45.2	5.2	1.4		0
	9400	HUAN	21	GRF	1611.1	1645.0	52.9	12.1	4.9		0
	2800	OTTA	20	GRF	1615.0	1622.0	90.0	4.0	1.6		
	8400	BERN	3	S	1617.0	1620.0	7.0	40.0			
	9400	HUAN	2	S/F	1618.5	1620.0	4.2	29.4	13.8		R
	19600	BERN	3	S	1619.0	1620.0	3.0	16.0			
	11800	BERN	3	S	1619.0	1620.0	4.0	38.0			
	9400	HUAN	20	GRF	1820.3	1832.6	22.3	3.5	2.0		0
	2800	OTTA	1	S	1848.6	1848.7	1.0	2.0	1.0		
	9400	HUAN	45	C	1928.3	1931.4	10.2	245.7	80.9		R
	8800	PALE	47	GB	1929.5	1931.8	11.8	230.0			QL=6 ST=2 TYP=5
	15400	PALE	47	GB	1929.6	1931.6	14.5	239.0			QL=6 ST=2 TYP=5
	4995	PALE	47	GB	1929.6	1931.8	8.5	189.0			QL=6 ST=2 TYP=5
	15400	SGMR	47	GB	1929.6	1932.3		260.0			QL=6 ST=3 TYP=5
	2695	PALE	47	GB	1929.8	1932.1	6.8	119.0			QL=6 ST=2 TYP=5
	2800	OTTA	4	S/F	1929.9	1932.5	10.1	110.0	34.0		
	410	PALE	47	GB	1930.3	1930.6	5.3	130.0			QL=6 ST=2 TYP=5
	610	SGMR	47	GB	1930.5	1931.6		290.0			QL=6 ST=3 TYP=5
	410	SGMR	47	GB	1930.5	1931.8		130.0			QL=6 ST=3 TYP=5

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

APRIL 1982

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
01	610	PALE	47	GB	1930.6	1931.6	7.2	380.0			QL=6 ST=2 TYP=5
	1415	PALE	4	S/F	1930.8	1932.6	4.3	40.0			QL=6 ST=2 TYP=3
	245	PALE	49	GB	1931.0	1931.3	6.6	670.0			QL=6 ST=2 TYP=6
	245	SGMR	47	GB	1931.0	1931.5		300.0			QL=6 ST=3 TYP=5
	9400	HUAN	29	PBI	1938.5	1938.5	50.9	13.8	6.4		0
	2800	OTTA	29	PBI	1940.0	1940.0	65.0	4.0	2.0		
	610	SGMR	47	GB	2024.0	2024.1	.5	70.0			QL=6 ST=2 TYP=5
	610	PALE	47	GB	2024.0	2024.1	.5	79.0			QL=5 ST=2 TYP=5
	2800	OTTA	20	GRF	2105.0	2110.0	45.0	2.0	1.2		
	8800	PALE	47	GB	2127.1	2127.8	6.4	430.0			QL=5 ST=2 TYP=5
	410	PALE	49	GB	2200.8	2201.0	.3	1399.0			QL=5 ST=2 TYP=6
	245	PALE	47	GB	2201.0	2201.3	.5	110.0			QL=5 ST=2 TYP=5
	3750	TYKW	5	S	2241.0	2244.2	10.0	2.5	1.0		
	9400	TYKW	5	S	2252.7	2253.1	1.5	9.0	3.0		
	9400	TYKW	5	S	2349.0	2349.7	4.0	34.0	8.0		
	15400	LEAR	8	S	2349.6	2349.8	.5	35.0			QL=6 ST=2 TYP=3
	8800	LEAR	8	S	2349.6	2349.8	.5	20.0			QL=6 ST=2 TYP=3
	9400	TYKW	29	PBI	2353.0		10.0	4.0	2.0		
02	245	LEAR	43	NS	0310.0	0539.5	417.0D	95.0			QL=6 ST=3 TYP=1
	200	GORK	44	NS	0419.0E		455.0D		5.0		
	260	ONDR	44	NS	0645.0E	1113.0D	443.0U	3.0U			
	245	SGMR	43	NS	1045.0	1312.5	724.0D	56.0			QL=6 ST=2 TYP=1
	208	VORO	44	NS	2200.0E		240.0D		1.0		
	245	LEAR	43	NS	2249.0	0904.0	677.0D	260.0			QL=6 ST=2 TYP=1
	410	LEAR	47	GB	0012.1	0013.3	1.4	90.0			QL=6 ST=2 TYP=5
	245	LEAR	8	S	0021.8	0021.8	.2	36.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0038.3	0038.5	.5	11.0			QL=6 ST=2 TYP=3
	9400	TYKW	21	GRF	0045.0	0110.0	60.0	4.0	2.0		
	3750	TYKW	21	GRF	0045.0	0111.0	60.0	3.0	1.5		
	2000	TYKW	5	S	0050.0	0051.3	7.0	2,5	1.0		
	3750	TYKW	5	S	0050.0	0051.5	5.0	2.0	1.0		
	245	LEAR	8	S	0055.1	0055.3	.2	22.0			QL=6 ST=2 TYP=3
	9400	TYKW	5	S	0113.0	0114.0	6.0	6.0	2.0		
	9400	TYKW	5	S	0140.0	0141.0	5.0	3.0	1.5		
	245	LEAR	8	S	0309.1	0309.1	.2	11.0			QL=6 ST=2 TYP=3
	9400	TYKW	5	S	0335.0	0336.9	6.0	5.0	2.0		
	9400	TYKW	20	GRF	0350.0	0421.0	70.0	4.0	2.0		
	3750	TYKW	5	S	0352.0	0400.0	20.0	2.0	1.0		
	2000	TYKW	20	GRF	0353.0	0600.0	260.0	5.0	2.0		
	1000	TYKW	20	GRF	0400.0	0550.0	240.0	2.0	1.0		
	15400	PALE	4	S/F	0400.6	0402.3	2.4	47.0			QL=5 ST=2 TYP=3
	17000	NOBE	1	S	0407.4	0407.6	1.0	13.0	0.0		
	3750	TYKW	20	GRF	0415.0	0425.0	55.0	2.0	1.0		
	3750	TYKW	20	GRF	0530.0	0605.0	120.0	4.0	2.0		
	245	LEAR	8	S	0720.3	0720.3	.2	16.0			QL=6 ST=2 TYP=3
	410	LEAR	47	GB	0720.3	0720.3	.2	56.0			QL=6 ST=2 TYP=5
	430	KRAK	42	SER	0720.4	0720.5	12.8	170.0			
	930	BORD	41	F	0750.9	0751.2	.4	60.0	2.0		
	930	BORD	8	S	0814.2	0814.3	.2	33.0	2.0		
	9100	GORK	21	GRF	0851.0	0912.5	120.0	39.0			
	6100	KISV	45	C	0858.0	0908.4	15.0	125.0			
	2950	GORK	21	GRF	0858.5	0911.5	46.5	13.5			
	2650	DWIN	4	S/F	0900.0U		5.0U	120.0	6.0		
	3100	CRIM	28	PRE	0900.0	0906.6	7.0	7.0	2.0		
	8400	BERN	4	S/F	0900.0	0908.3	50.0D	208.0			
	11800	BERN	4	S/F	0900.0	0908.3	50.0	150.0			
	33	UPIC	42	SER	0900.7	1113.4U	133.0				
	29	UPIC	42	SER	0901.1	1113.8	132.8				
	4995	LEAR	47	GB	0904.1	0907.8	9.7	260.0			QL=6 ST=2 TYP=5
	15000	KISV	45	C	0904.7	0908.6	8.0	218.0			
	200	GORK	47	GB	0904.8E	0913.8	12.0D	8000.0D			
	8800	LEAR	47	GB	0905.1	0908.1	8.7	239.0			QL=6 ST=2 TYP=5
	2695	LEAR	47	GB	0905.1	0908.3	8.0	160.0			QL=6 ST=2 TYP=5
	260	ONDR	45	C	0906.4	0909.0U	10.0U				
	9500	POTS	29	PBI	0906.5	0907.5	69.0	170.0			
	3100	CRIM	3	S	0906.6	0908.0	5.0	139.0	46.0		
	1470	POTS	4	S/F	0906.7	0907.5	9.8	315.0			
	4995	MANI	4	S/F	0906.7	0907.6	4.8	309.3	103.1		
	3000	POTS	29	PBI	0906.8	0907.7	38.0	140.0			

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
02	15400	LEAR	47	GB	0906.8	0908.3	6.3	200.0			QL=6 ST=2 TYP=5
	9100	GORK	46	C	0906.9	0907.4	4.8	118.0			
	9100	GORK			0906.9	0907.9		208.0			
	2950	GORK	3	S	0906.9	0908.2	4.5	137.0			
	2695	MANI	4	S/F	0906.9	0908.3	4.6	120.5	40.2		
	35000	BERN	4	S/F	0907.0	0907.5	50.0U	240.0			
	19600	BERN	4	S/F	0907.0	0908.2	50.0D	180.0			
	1415	MANI	4	S/F	0907.0	0908.3	3.3	203.7	67.9		
	606	MANI	4	S/F	0907.0	0908.3	2.0	16.8	5.6		
	8800	MANI	4	S/F	0907.0	0908.3	4.5	87.3	29.1		
	1415	LEAR	47	GB	0907.3	0907.3	2.3	430.0			QL=6 ST=2 TYP=5
	410	LEAR	49	GB	0907.3	0908.3	1.5	890.0			QL=6 ST=2 TYP=6
	950	GORK	46	C	0907.4	0908.3	8.4	39.0			
	650	GORK	4	S/F	0907.4	0908.5U	3.8	30.0D			
	950	GORK			0907.4	0912.3		37.0			
	610	LEAR	47	GB	0907.5	0908.1	2.3	169.0			QL=6 ST=2 TYP=5
	810	KRAK	45	C	0907.6	0907.8	13.2	30.0	5.0		
	430	KRAK	42	SER	0907.6	0908.0U	11.0	560.0D			
	536	ONDR	45	C	0907.8	0908.4	7.8	42.0	14.0		
	808	ONDR	7	C	0907.8	0908.7	6.8	32.0	13.0		
	245	LEAR	49	GB	0908.0	0908.3	1.3	22000.0			QL=6 ST=2 TYP=6
	204	IZMI	47	GB	0908.0	0908.5	1.1	8000.0	2000.0		
	100	GORK	41	F	0908.3	0908.6	7.7	220.0D			
	100	GORK			0908.3	0911.8		2000.0D			
	100	GORK			0908.3	0913.8		233000.0			
	245	LEAR	49	GB	0911.1	0912.0	2.0	9700.0			QL=6 ST=2 TYP=6
	234	POTS	4	S/F	0911.4	0911.5	2.0	38000.0			III
	410	LEAR	47	GB	0911.5	0914.5	4.6	50.0			QL=6 ST=3 TYP=5
	3100	CRIM	29	PBI	0911.6	0912.0	53.0	13.0	4.0		
	113	POTS	4	S/F	0911.8	0911.8	7.9	18000.0			III
	204	IZMI	47	GB	0911.8	0912.0	5.0	9500.0	2000.0		
	930	BORD	41	F	0911.8	0912.4	1.2	52.0	2.0		
	610	LEAR	4	S/F	0911.8	0914.1	4.2	38.0			QL=6 ST=3 TYP=3
	15000	KISV	29	PBI	0912.7	0913.0	45.0	38.0			
	6100	KISV	29	PBI	0913.0	0913.0	65.0	27.0			
	127	TORN	47	GB	0914.2	0916.7	5.0	15000.0	1400.0		
	113	POTS	4	S/F	0929.1	0929.1	.2	120.0	40.0		
	100	GORK	8	S	1008.3	1008.5	.5	220.0D			
	204	IZMI	41	F	1008.5	1008.8	.2	510.0			
	430	KRAK	42	SER	1009.9	1019.1	53.0	48.0			
	204	IZMI	41	F	1129.0	1129.5	3.0	180.0			
	2800	OTTA	20	GRF	1145.0	1255.0	195.0	6.4	3.0		
	930	BORD	8	S	1233.4	1233.4	.3	44.0	2.0		
	2800	OTTA	23	GRF	1540.0	1541.0	35.0	2.4			
	2800	OTTA	1	S	1542.0	1543.0	2.5	2.6	1.3		
	2800	OTTA	8	S	1625.0	1625.2	.4	4.4	2.2		
	2800	OTTA	20	GRF	1815.0	1830.0	45.0	2.2	1.1		
	3750	TYKW	45	C	2255.0	2256.8	5.0	3.0	1.0		
	410	LEAR	8	S	2323.6	2323.8	.5	35.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	2323.8	2323.8	.2	180.0			QL=6 ST=2 TYP=5
	245	LEAR	8	S	2347.8	2348.1	1.0	15.0			QL=6 ST=2 TYP=3
	1000	TYKW	5	S	2348.0	2348.4	1.0	1.0	.3		
	410	PALE	47	GB	2348.1	2348.1	.2	490.0			QL=6 ST=2 TYP=5
	410	LEAR	47	GB	2348.1	2348.3	.2	210.0			QL=6 ST=2 TYP=5
03	200	GORK	44	NS	0401.0E		389.0D		5.0		
	260	ONDR	44	NS	0640.0E	1012.0U	444.0D	3.0U			
	245	LEAR	43	NS	2303.0	2316.8	662.0D	56.0			QL=6 ST=3 TYP=1
	3750	TYKW	20	GRF	0115.0	0135.0	80.0	7.0	3.0		
	2000	TYKW	21	GRF	0125.0	0140.0	90.0	2.0	1.0		
	9400	TYKW	21	GRF	0128.0	0136.0	120.0	10.0	4.0U		RAIN
	2000	TYKW	45	C	0130.8	0131.2	.8	2.5	1.0		
	410	LEAR	4	S/F	0158.8E	0159.8	2.2D	20.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0241.0	0241.5	.6	10.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0241.0	0241.5	.8	15.0			QL=6 ST=2 TYP=3
	2000	TYKW	45	C	0241.5	0241.7	45.0	51.0	5.0		
	2695	LEAR	8	S	0241.6	0241.8	.4	15.0			QL=6 ST=2 TYP=3
	1415	LEAR	4	S/F	0241.6	0243.8	4.4	15.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0322.6	0322.8	.4	15.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0322.6	0322.8	.2	10.0			QL=6 ST=2 TYP=3

SOLAR RADIO EMISSION
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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
03	8800	LEAR	4	S/F	0331.0	0334.0	6.0	20.0			QL=6 ST=2 TYP=3
	15400	LEAR	4	S/F	0331.0	0334.0	6.0	18.0			QL=6 ST=2 TYP=3
	9395	PEKG	2	S/F	0331.0	0334.6	10.0	11.4	1.7		
	17000	NOBE	1	S	0333.6	0334.1	1.5	18.0	0.0		
	9400	TYKW	5	S	0431.0	0431.9	2.0	6.0	2.0		
	9400	TYKW	45	C	0433.0	0434.0	4.0	16.0	3.0		
	2000	TYKW	21	GRF	0440.0	0545.0	220.0	3.0	1.5		
	3750	TYKW	21	GRF	0510.0	0618.0	140.0	5.0	2.0		
	650	GORK	23	GRF	0523.5	0545.0	32.0	4.0			
	950	GORK	41	F	0536.0	0537.2	19.7	2.0			
	950	GORK			0536.0	0545.2		2.0			
	950	GORK			0536.0	0549.0		2.0			
	950	GORK			0536.0	0553.6		2.0			
	1000	TYKW	45	C	0544.5	0549.1	7.0	6.0	1.0		
	610	LEAR	47	GB	0547.1	0547.5	.5	60.0			QL=6 ST=2 TYP=5
	3750	TYKW	45	C	0548.0	0550.0	10.0	3.0	1.5		
	2000	TYKW	45	C	0548.5	0553.7	9.0	6.0	2.0		
	9100	GORK	21	GRF	0548.5	0758.5	258.0	10.0			
	410	LEAR	8	S	0548.8	0549.8	1.8	13.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0548.8	0549.8	1.7	26.0			QL=6 ST=2 TYP=3
	2950	GORK	1	S	0549.0	0550.0	6.4	4.6	2.3		
	1000	TYKW	45	C	0609.5	0610.9	2.5	4.0	1.0		
	950	GORK	2	S/F	0609.6	0610.9	2.4	3.0			
	650	GORK	2	S/F	0610.0	0610.8	2.4	2.6			
	650	GORK	4	S/F	0636.0	0637.6	2.9	8.0	2.5		
	4995	ATHN	20	GRF	0636.1	0636.5	.5	2.0			QL=5 ST=2 TYP=2
	1415	ATHN	20	GRF	0636.1	0636.5	1.9	5.0			QL=5 ST=2 TYP=2
	2695	ATHN	20	GRF	0636.1	0636.5	1.5	3.0			QL=5 ST=2 TYP=2
	950	GORK	3	S	0636.4	0637.5	2.8	5.6			
	200	GORK	41	F	0636.4	0637.5	11.7	60.0D			
	200	GORK			0636.4	0647.7		60.0D			
	204	IZMI	4	S/F	0636.5	0637.0	1.4	65.0	40.0		
	245	LEAR	8	S	0636.8	0637.3	2.0	32.0			QL=6 ST=2 TYP=3
	610	LEAR	8	S	0636.8	0637.6	2.0	11.0			QL=6 ST=2 TYP=3
	500	HIRA	45	C	0637.0	0637.4	1.0	17.0	4.0		0
	1000	TYKW	5	S	0637.0	0637.6	2.0	6.0	2.0		
	410	LEAR	47	GB	0637.0	0637.6	1.6	56.0			QL=6 ST=2 TYP=5
	2000	TYKW	5	S	0637.0	0637.6	2.0	3.0	1.0		
	2950	GORK	1	S	0637.1	0637.5	1.4	3.4			
	100	GORK	41	F	0637.2	0637.5	7.2	165.0D			
	3750	TYKW	5	S	0637.2	0637.6	1.0	3.0	1.0		
	100	GORK			0637.2	0643.7		200.0D			
	33	UPIC	3	S	0643.6	0643.7	.3				
	29	UPIC	1	S	0643.9	0644.0	.3				
	410	LEAR	8	S	0646.8	0647.0	1.0	17.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0647.1	0647.6	1.0	27.0			QL=6 ST=2 TYP=3
	204	IZMI	41	F	0647.2	0647.5	1.0	200.0			
	204	IZMI	41	F	0715.5	0715.6	.8	130.0			
	410	LEAR	47	GB	0715.5	0715.8	.8	73.0			QL=6 ST=3 TYP=5
	245	LEAR	47	GB	0715.5	0715.8	1.0	160.0			QL=6 ST=3 TYP=5
	430	KRAK	8	S	0715.7	0715.8	.4	160.0			
	234	POTS	4	S/F	0715.8	0715.9	.3	120.0	5.0		III
	245	LEAR	49	GB	0739.1	0739.1	.2	760.0			QL=6 ST=3 TYP=6
	204	IZMI	8	S	0739.2	0739.2	.1	200.0	180.0		
	234	POTS	8	S	0739.2	0739.3	.7	1000.0	300.0		
	430	KRAK	8	S	0742.0	0742.1	.4	96.0			
	6100	KISV	2	S/F	0742.4	0744.8	3.0	4.0			
	3750	TYKW	5	S	0743.0	0744.6	5.0	5.0	1.5		
	2950	GORK	1	S	0743.6	0744.6	1.7	3.5	1.7		
	2840	PEKG	1	S	0744.0	0745.0	2.0	3.2	1.5		
	100	GORK	46	C	0806.0	0806.2	1.7	240.0D			
	100	GORK			0806.0	0807.4		240.0D			
	113	POTS	4	S/F	0806.3	0806.4	1.4	240.0	25.0		III
	9100	GORK	1	S	0852.9	0853.3	1.4	20.0	10.0		
	9500	POTS	3	S	0853.0	0853.3	1.5	21.0			
	15400	LEAR	47	GB	0853.0	0853.3	.6	57.0			QL=6 ST=2 TYP=5
	9395	PEKG	2	S/F	0853.0	0853.9	2.0	19.6	3.7		
	8800	LEAR	8	S	0853.1	0853.3	.5	23.0			QL=6 ST=2 TYP=3
	6100	KISV	2	S/F	0853.1	0853.5	1.5	4.0			
	15000	KISV	2	S/F	0853.2	0853.6	1.5	41.0			

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
03	234	POTS	4	S/F	0903.8	0903.9	.8	200.0	15.0		
	204	IZMI	4	S/F	0903.9	0904.0	1.0	970.0	600.0		
	245	LEAR	47	GB	0939.1	0939.3	.5	57.0			QL=6 ST=2 TYP=5
	410	LEAR	8	S	0939.3	0939.3	.2	15.0			QL=6 ST=2 TYP=3
	610	LEAR	8	S	0939.3	0939.3	.2	16.0			QL=6 ST=2 TYP=3
	8400	BERN	3	S	0953.0	0953.3U	1.0	20.0			
	19600	BERN	3	S	0953.0	0953.3U	1.0	55.0			
	11800	BERN	3	S	0953.0	0953.4U	1.0	38.0			
	127	TORN	1	S	1010.4	1010.6	.7	13.0	6.0		
	127	TORN	1	S	1013.9	1014.1	.7	14.0	7.0		
	2800	OTTA	21	GRF	1210.0	1240.0	100.0	4.2	2.1		
	9400	HUAN	20	GRF	1222.5	1230.4	16.6	4.9	1.8		0
	6100	KISV	27	RF	1226.0	1230.3	1.0	4.0			
	9500	POTS	20	GRF	1227.0	1230.0	9.5	5.0			
	3000	POTS	20	GRF	1227.0	1230.0	3.7U	8.0			
	1470	POTS	21	GRF	1227.0	1233.3	9.5	12.0			
	536	ONDR	40	F	1227.3	1233.4	16.3	6.0	5.0		
	808	ONDR	40	F	1227.7	1230.6	7.3	15.0	11.0		
	930	BORD	46	C	1228.4	1229.6	6.6	45.0	4.0		
	2800	OTTA	1	S	1229.5	1230.5	3.0	4.2	2.1		
	1415	SGMR	4	S/F	1229.6	1229.6	3.9	16.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1229.6	1230.0	3.4	16.0			QL=6 ST=2 TYP=3
	610	SGMR	4	S/F	1229.8	1230.1	3.8	23.0			QL=6 ST=2 TYP=3
	930	BORD	41	F	1240.0	1240.8	2.2	44.0	2.0		
	234	POTS	4	S/F	1315.7	1315.8	.2	250.0	50.0		
	33	UPIC	42	SER	1439.6	1440.6	20.4				
	2695	SGMR	8	S	1440.1	1440.6	1.2	16.0			QL=6 ST=3 TYP=3
	29	UPIC	42	SER	1440.2		19.8				
	610	SGMR	8	S	1440.3	1441.3	1.3	21.0			QL=6 ST=2 TYP=3
	245	SGMR	47	GB	1457.6	1459.3	1.9	320.0			QL=6 ST=2 TYP=5
	410	SGMR	47	GB	1457.8	1458.0	2.3	56.0			QL=6 ST=2 TYP=5
	610	SGMR	47	GB	1457.8	1458.1	2.0	300.0			QL=6 ST=2 TYP=5
	930	BORD	46	C	1457.8	1458.2	1.0	17.0	3.0		
	9400	HUAN	1	S	1457.8	1459.7	3.6	9.8	4.6		0
	930	BORD	41	F	1516.2	1516.6	1.0	31.0	2.0		
	930	BORD	41	F	1606.2	1608.2	2.4	32.0	2.0		
	9400	HUAN	20	GRF	1725.7	1737.2	21.7	8.2	3.8		0
	610	SGMR	8	S	1741.3	1741.6	.5	31.0			QL=6 ST=2 TYP=3
	930	BORD	41	F	1741.5	1741.6	.4	39.0	2.0		
	9400	HUAN	20	GRF	1856.8	1900.6	27.4	6.5	3.3		0
	2800	OTTA	20	GRF	2000.0	2115.0	140.0	3.4	1.7		
	410	LEAR	8	S	2342.5	2342.6	.1	7.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	2342.5	2342.6	.1	160.0			QL=6 ST=2 TYP=5
04	260	ONDR	44	NS	0702.0E	0757.0U	439.0D	4.0U			
	245	LEAR	43	NS	2249.0	0004.5	675.0D	36.0			QL=6 ST=2 TYP=1
	3750	TYKW	20	GRF	0010.0	0023.0	50.0	2.0	**1.0**		
	9400	TYKW	5	S	0037.5	0038.0	1.5	4.0	1.5		
	3750	TYKW	20	GRF	0130.0	0235.0	120.0	4.0	2.0		
	610	LEAR	8	S	0147.6	0147.8	.4	8.0			QL=6 ST=2 TYP=3
	410	LEAR	47	GB	0147.6	0147.8	1.0	76.0			QL=6 ST=2 TYP=5
	2000	TYKW	20	GRF	0210.0	0235.0	50.0	2.0	.7		
	410	LEAR	8	S	0320.0	0320.1	.6	22.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	0320.0	0320.1	.8	67.0			QL=6 ST=2 TYP=5
	9400	TYKW	21	GRF	0345.0	0420.0	180.0	5.0	2.5		
	3750	TYKW	21	GRF	0355.0	0500.0	155.0	7.0	4.0		
	2000	TYKW	21	GRF	0355.0	0510.0	155.0	5.0	3.0		
	9395	PEKG	20	GRF	0401.0	0416.0	47.0	6.8	3.5		
	950	GORK	2	S/F	0401.2	0403.0	2.7	4.0			
	2000	TYKW	5	S	0401.7	0402.7	2.0	14.0	4.0		
	1415	LEAR	8	S	0401.8	0402.8	2.0	10.0			QL=6 ST=2 TYP=3
	610	LEAR	8	S	0401.8	0402.8	2.0	7.0			QL=6 ST=2 TYP=3
	3750	TYKW	5	S	0402.0	0402.6	2.0	24.0	5.0		
	1000	TYKW	5	S	0402.0	0402.8	2.5	4.0	1.5		
	2840	PEKG	5	S	0402.0	0403.0	3.0	49.5	3.0		
	9395	PEKG	5	S	0402.0	0403.0	3.0	44.7	3.2		
	1000	TYKW	21	GRF	0402.0	0510.0	150.0	2.0	1.0		
	650	GORK	4	S/F	0402.1	0402.8	1.7	4.5			
	4995	LEAR	8	S	0402.1	0402.8	1.0	13.0			QL=6 ST=2 TYP=3
	500	HIRA	45	C	0402.2	0402.3	1.0	20.0	7.0		0

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
04	410	LEAR	8	S	0402.3	0402.3	.5	40.0			QL=6 ST=2 TYP=3
	410	PALE	8	S	0402.3	0402.5	.3	34.0			QL=6 ST=2 TYP=3
	9400	TYKW	5	S	0402.3	0402.7	1.0	45.0	12.0		
	8800	LEAR	8	S	0402.5	0402.6	.5	46.0			QL=6 ST=2 TYP=3
	2695	LEAR	47	GB	0402.5	0402.6	.3	57.0			QL=6 ST=2 TYP=5
	1415	MANI	1	S	0402.5	0403.2	1.6	7.3	2.4		
	9100	GORK	4	S/F	0402.6	0402.8	.8	38.0			
	2695	MANI	8	S	0402.9	0403.2	.8	54.7	18.2		
	2950	GORK	3	S	0403.2U	0403.2	.6U	19.7			
	650	GORK	2	S/F	0432.4	0435.1	2.8	3.0			
	950	GORK	1	S	0435.0	0435.2	.6	3.0			
	1000	TYKW	5	S	0435.0	0435.2	.7	4.0	1.5		
	2000	TYKW	5	S	0435.0	0435.3	1.0	1.5	.5		
	410	LEAR	8	S	0435.1	0435.1	.2	30.0			QL=6 ST=2 TYP=3
	2000	TYKW	5	S	0617.0	0618.5	5.0	2.0	1.0		
	3750	TYKW	5	S	0617.0	0618.5	10.0	1.5	.7		
	2000	TYKW	45	C	0800.0	0807.5	10.0	8.0	5.0		
	3750	TYKW	21	GRF	0800.0	0815.0	35.0D	8.0	4.5D		
	2950	GORK	20	GRF	0801.0	0807.5	35.0	9.3			
	410	LEAR	8	S	0801.5	0801.6	.1	17.0			QL=6 ST=2 TYP=3
	3750	TYKW	5	S	0802.0	0802.4	3.0	3.0	1.0		
	9400	TYKW	20	GRF	0802.0	0820.0	32.0D	15.0	10.0D		
	9100	GORK	20	GRF	0805.1	0839.5	110.0D	10.0			
	2000	TYKW	29	PBI	0810.0		24.0D	5.0	3.5D		
	100	GORK	41	F	0839.6	0841.6	7.8	180.0D			
	100	GORK			0839.6	0847.1		180.0D			
	200	GORK	41	F	0839.9	0840.8	8.3	50.0			
	200	GORK			0839.9	0847.0		60.0D			
	650	GORK	20	GRF	0840.7	0842.0	2.0	7.4			
	113	POTS	42	SER	0840.8	0847.0	6.9	450.0	5.0		III
	204	IZMI	41	F	0841.0	0848.0	8.0	36.0			
	950	GORK	41	F	0841.5	0842.2	5.9	.5			
	950	GORK			0841.5	0847.1		.5			
	245	LEAR	47	GB	0846.8	0847.0	.3	110.0			QL=6 ST=2 TYP=5
	430	KRAK	8	S	0847.2	0847.2	.2	17.0			
	430	KRAK	8	S	1106.0	1106.0	.2	29.0			
	9400	HUAN	21	GRF	1324.4	1408.0	72.7	8.8	2.6		0
	2800	OTTA	21	GRF	1335.0	1355.0	75.0	3.6			
	808	ONDR	40	F	1351.3	1352.6	10.0	10.0	6.0		
	9500	POTS	20	GRF	1356.0	1400.5	29.0	13.0			
	2800	OTTA	4	S/F	1358.0	1400.2	3.5	32.0	8.0		
	9400	HUAN	1	S	1358.6	1400.0	4.1	10.6	6.2		0
	3000	POTS	3	S	1359.0	1400.2	3.5	30.0			
	1470	POTS	4	S/F	1359.0	1400.4	3.5	11.0			
	245	SGMR	47	GB	1359.1	1359.3	1.0	219.0			QL=6 ST=2 TYP=5
	4995	SGMR	8	S	1359.1	1359.6	1.4	22.0			QL=6 ST=2 TYP=3
	2695	SGMR	8	S	1359.1	1400.1	1.5	36.0			QL=6 ST=2 TYP=3
	1415	ATHN	4	S/F	1359.1	1400.3	5.2	13.0			QL=6 ST=2 TYP=3
	2695	ATHN	4	S/F	1359.1	1400.3	2.4	29.0			QL=6 ST=2 TYP=3
	234	POTS	4	S/F	1359.2	1359.4	1.0	200.0	20.0		III
	4995	ATHN	4	S/F	1359.3	1400.3	5.7	13.0			QL=6 ST=2 TYP=3
	127	TORN	7	C	1359.5	1400.3	2.0	590.0	290.0		
	8800	ATHN	4	S/F	1359.6	1400.5	5.4	10.0			QL=6 ST=2 TYP=3
	1415	SGMR	8	S	1359.8	1400.3	.7	19.0			QL=6 ST=2 TYP=3
	2650	DWIN	2	S/F	1400.0U		3.0U	30.0	10.0		
	8800	SGMR	8	S	1400.0	1400.1	.1	19.0			QL=6 ST=2 TYP=3
	245	SGMR	47	GB	1555.0	1555.1	.5	61.0			QL=6 ST=2 TYP=5
	245	SGMR	8	S	1557.8	1557.8	.2	36.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1610.8	1611.0	.2	13.0			QL=6 ST=2 TYP=3
	930	BORD	41	F	1613.0	1613.3	.6	33.0	2.0		
	245	SGMR	47	GB	1719.1	1719.5	.5	200.0			QL=6 ST=2 TYP=5
	245	LEAR	47	GB	2338.6	2338.8	.2	150.0			QL=6 ST=2 TYP=5
	410	LEAR	8	S	2338.6	2338.8	.2	6.0			QL=6 ST=2 TYP=3
05	410	LEAR	43	NS	0243.0	0723.3	441.0D	35.0			QL=6 ST=2 TYP=1
	260	ONDR	44	NS	0623.0E	0815.0U	521.0D	4.0U			
	410	PALE	43	NS	1650.0	0008.0	695.0D	320.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1650.0	1819.0	695.0D	110.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2333.5	2349.1	629.5D	110.0			QL=6 ST=2 TYP=1
	3750	TYKW	45	C	0117.0	0117.3	2.0	4.0	1.5		

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
05	9400	TYKW	5	S	0117.0	0117.7	2.0	4.0	1.5		
	2000	TYKW	5	S	0139.2	0139.5	1.0	7.0	2.0		
	208	VORO	41	F	0151.0	0155.0	8.0	160.0			
	208	VORO			0151.0	0157.0		137.0			
	245	LEAR	47	GB	0151.5	0152.1	7.0	56.0			QL=6 ST=2 TYP=5
	410	LEAR	47	GB	0151.5	0152.1	7.0	11.0			QL=6 ST=2 TYP=5
	410	PALE	47	GB	0154.3	0154.6	.5	200.0			QL=6 ST=2 TYP=5
	610	LEAR	47	GB	0154.3	0154.8	4.2	31.0			QL=6 ST=2 TYP=5
	245	PALE	47	GB	0154.3	0154.8	.5	230.0			QL=6 ST=2 TYP=5
	2000	TYKW	5	S	0303.5	0303.8	1.5	1.5	.5		
	3750	TYKW	5	S	0303.5	0303.8	1.5	2.5	1.0		
	650	GORK	2	S/F	0525.4	0527.3	4.0	2.5			
	113	POTS	8	S	0603.2	0603.3	.8	800.0	250.0		
	410	LEAR	8	S	0610.1	0610.3	.2	13.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0610.1	0610.3	.2	33.0			QL=6 ST=2 TYP=3
	430	KRAK	42	SER	0711.1	0711.1	20.7	49.0			
	430	KRAK			0711.1	0721.7		50.0			
	430	KRAK	8	S	0839.3	0839.3	.2	31.0			
	430	KRAK	8	S	0844.1	0844.1	.2	16.0			
	204	IZMI	41	F	0845.4	0847.8	3.0	20.0			
	650	GORK	22	GRF	0846.1	0852.1	8.2	3.0			
	33	UPIC	46	C	0846.7	0847.3	3.2				
	100	GORK	4	S/F	0846.9	0847.5	3.9	220.0D			
	29	UPIC	46	C	0846.9	0847.8	3.5				
	245	LEAR	8	S	0847.1	0847.5	.5	10.0			QL=6 ST=2 TYP=3
	113	POTS	4	S/F	0847.5	0847.8	1.5	175.0	25.0		III
	410	LEAR	8	S	0940.0	0940.1	.1	11.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0940.0	0940.1	.1	38.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0945.6	0947.1	2.0	17.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	0945.6	0947.1	1.9	60.0			QL=6 ST=2 TYP=5
	204	IZMI	41	F	0946.4	0947.0	2.0	125.0			
	245	SGMR	8	S	1011.1	1011.5	1.0	30.0			QL=6 ST=2 TYP=3
	430	KRAK	8	S	1014.6	1014.6	.2	100.0			
	430	KRAK	8	S	1028.2	1028.2	.2	22.0			
	2800	OTTA	20	GRF	1510.0	1820.0	610.0	34.0	11.6		
	930	BORD	46	C	1534.0	1542.4	16.0	102.0	6.0		
	9400	HUAN	20	GRF	1546.8	1709.6	208.0	30.4	17.1		0
	245	SGMR	8	S	1611.1	1611.5	1.0	30.0			QL=6 ST=3 TYP=3
	930	BORD	46	C	1616.0	1616.8	2.2	25.0	8.0		
	610	SGMR	47	GB	1616.3	1617.1	3.8	260.0			QL=6 ST=2 TYP=5
	410	SGMR	47	GB	1616.3	1617.3	4.3	230.0			QL=6 ST=2 TYP=5
	245	SGMR	47	GB	1616.3	1617.6	5.0	100.0			QL=6 ST=2 TYP=5
	930	BORD	41	F	1655.6	1655.7	.4	42.0	2.0		
	930	BORD	41	F	1708.0	1708.3	.4	50.0	2.0		
	245	SGMR	8	S	2103.0	2103.1	.1	21.0			QL=6 ST=2 TYP=3
	245	PALE	47	GB	2130.8	2132.1	2.0	160.0			QL=6 ST=2 TYP=5
	410	SGMR	4	S/F	2131.0	2132.0	2.1	18.0			QL=6 ST=2 TYP=3
	245	SGMR	47	GB	2131.5	2132.1	1.1	119.0			QL=6 ST=3 TYP=5
	245	LEAR	47	GB	2324.8	2325.0	.3	219.0			QL=6 ST=2 TYP=5
	410	LEAR	8	S	2324.8	2325.0	.3	5.0			QL=6 ST=2 TYP=3
06	260	ONDR	44	NS	0622.0E		477.0D	2.0U			
	410	LEAR	8	S	0207.8	0207.8	.2	30.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0207.8	0208.0	.5	25.0			QL=6 ST=2 TYP=3
	1000	TYKW	5	S	0221.8	0222.1	1.5	1.5	.5		
	2000	TYKW	20	GRF	0223.0	0231.0	85.0	3.0	1.5		
	3750	TYKW	20	GRF	0225.0	0240.0	120.0	3.0	1.5		
	9400	TYKW	20	GRF	0225.0	0300.0	120.0	4.0	2.0		
	410	LEAR	8	S	0431.6	0431.8	.5	22.0			QL=5 ST=3 TYP=3
	245	LEAR	47	GB	0431.6	0431.8	.5	280.0			QL=5 ST=2 TYP=5
	200	GORK	41	F	0431.7	0432.1	6.3	70.0D			
	200	GORK			0431.7	0438.2		70.0D			
	100	GORK	41	F	0431.8	0432.0	6.2	140.0D			
	100	GORK			0431.8	0437.3		140.0D			
	650	GORK	2	S/F	0432.2	0432.6	2.5	3.4			
	245	LEAR	47	GB	0436.8	0437.0	1.0	70.0			QL=5 ST=2 TYP=5
	410	LEAR	8	S	0436.8	0437.0	1.0	8.0			QL=5 ST=2 TYP=3
	2000	TYKW	20	GRF	0500.0	0555.0	100.0	3.5	1.5		
	9400	TYKW	20	GRF	0520.0	0555.0	90.0	4.0	2.0		
	3750	TYKW	20	GRF	0530.0	0555.0	60.0	2.0	1.0		

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
06	245	LEAR	47	GB	0535.3	0535.6	.8	150.0			QL=5 ST=2 TYP=5
	410	LEAR	8	S	0535.3	0535.6	.8	46.0			QL=5 ST=2 TYP=3
	245	LEAR	47	GB	0701.1	0701.8	3.9	160.0			QL=6 ST=2 TYP=5
	204	IZMI	41	F	0721.3	0721.4	1.9	1800.0			
	245	LEAR	49	GB	0721.5	0721.6	1.6	1800.0			QL=6 ST=2 TYP=6
	234	POTS	4	S/F	0721.5	0721.8	1.8	1400.0	100.0		III
	430	KRAK	8	S	0721.7	0721.9	.8	200.0			
	410	LEAR	8	S	0722.0	0722.1	.1	41.0			QL=6 ST=2 TYP=3
	410	PALE	47	GB	1750.3	1750.5	.3	180.0			QL=6 ST=2 TYP=5
	410	SGMR	47	GB	1750.3	1750.5	.3	100.0			QL=3 ST=2 TYP=5
	3750	TYKW	20	GRF	2110.0	2200.0	120.0	3.0	1.5		RAIN
	245	LEAR	47	GB	2351.5	2351.6	.1	130.0			QL=6 ST=2 TYP=5
07	245	LEAR	43	NS	0221.0	0706.0	461.0D	200.0			QL=6 ST=2 TYP=1
	245	LEAR	8	S	0041.1	0041.1	.2	47.0			QL=6 ST=2 TYP=3
	3750	TYKW	20	GRF	0120.0	0137.0	45.0	1.5	.7		
	245	LEAR	8	S	0131.1	0131.1	.2	28.0			QL=6 ST=2 TYP=3
	3750	TYKW	20	GRF	0214.0	0221.0	35.0	3.0	1.0		
	2000	TYKW	5	S	0215.0	0221.0	20.0	1.5	.5		
	410	LEAR	47	GB	0220.1	0220.1	.2	94.0			QL=6 ST=2 TYP=5
	245	LEAR	47	GB	0220.1	0220.5	1.9	310.0			QL=6 ST=2 TYP=5
	245	PALE	47	GB	0220.8	0221.1	1.0	200.0			QL=6 ST=2 TYP=5
	410	LEAR	8	S	0641.6	0641.8	.2	26.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	0641.6	0641.8	.2	189.0			QL=6 ST=2 TYP=5
	260	ONDR	8	S	0641.8	0641.9	.2	56.0			
	260	ONDR	8	S	0643.9	0644.3	.4U	8.0			
	260	ONDR	7	C	0647.0	0648.0	1.7	8.0	5.0		
	260	ONDR	8	S	0705.9	0706.1	1.2	8.0			
	204	IZMI	5	S	0706.0	0706.3	.5	100.0	65.0		
	260	ONDR	7	C	0733.2	0734.3	2.6	8.0	5.0		
	260	ONDR	8	S	0752.0	0752.3	1.6	16.0			
	2695	LEAR	8	S	0829.8	0830.0	.3	17.0			QL=6 ST=2 TYP=3
	2695	LEAR	8	S	0843.5	0844.0	.6	28.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0909.8	0911.0	1.8	15.0			QL=6 ST=2 TYP=3
	245	LEAR	49	GB	0910.0	0910.8	1.1	560.0			QL=6 ST=2 TYP=6
	260	ONDR	42	SER	0910.3	0910.8	5.9	148.0	5.0		
	204	IZMI	45	C	0910.5	0910.7	.8	490.0	250.0		
	430	KRAK	8	S	0910.7	0910.9	.6	30.0			
	234	POTS	4	S/F	0910.7	0910.9	.4	480.0	80.0		
	260	ONDR	8	S	0954.7	0955.0	2.1	20.0			
	260	ONDR	42	SER	0959.2	1004.2	21.0	5.0	2.0		
	930	BORD	46	C	1002.0	1002.6	2.4	30.0	5.0		
	808	ONDR	2	S/F	1002.4	1003.7	2.3	18.0	16.0		
	650	GORK	2	S/F	1002.5	1003.8	3.0	3.0			
	2950	GORK	22	GRF	1002.7	1002.8	62.0D	10.4			
	950	GORK	4	S/F	1003.4E	1003.7	2.2D	16.0			
	430	KRAK	8	S	1212.3	1212.3	.2	16.0			
	260	ONDR	7	C	1218.7	1223.0	4.3U	49.0	18.0		
	1470	POTS	20	GRF	1220.0	1221.5	15.0	5.0			
	2800	OTTA	20	GRF	1220.0	1223.0	20.0	6.4	2.8		
	3000	POTS	20	GRF	1220.0	1223.0	4.0	6.0			
	1470	POTS			1220.0	1223.0		5.0			
	29	UPIC	45	C	1220.3	1222.6	3.4				
	113	POTS	42	SER	1220.3	1230.0	14.0	280.0	10.0		III
	430	KRAK	41	F	1220.4	1222.8	4.1	180.0			
	33	UPIC	46	C	1220.6	1222.5	3.3				
	536	ONDR	40	F	1221.0	1222.7	1.8	6.0	5.0		
	930	BORD	41	F	1221.3	1221.3	.7	42.0	2.0		
	127	TORN	5	S	1221.4	1223.0	3.0	150.0	80.0		
	127	TORN	8	S	1229.0	1229.6	1.2	3200.0	1600.0		
	930	BORD	8	S	1320.0	1320.3	.3	25.0	2.0		
	2800	OTTA	20	GRF	1650.0	1656.0	100.0	6.0	3.0		
	245	PALE	47	GB	1703.1	1703.1	.2	73.0			QL=6 ST=2 TYP=5
	245	LEAR	47	GB	2305.8	2306.0	.3	180.0			QL=6 ST=2 TYP=5
	410	LEAR	8	S	2305.8	2306.0	.3	10.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	2336.5	2336.6	.1	5.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	2336.5	2336.6	.1	130.0			QL=6 ST=2 TYP=5
08	200	GORK	43	NS	0445.0		422.0		5.0		
	260	ONDR	43	NS	0618.0	0945.0U	471.0D	3.0U			

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
08	127	TORN	43	NS	0920.0	1120.6	214.0D	40.0	2.0		V0
	100	GORK	43	NS	1106.0		60.0D		10.0		
	208	VORO	44	NS	2330.0E		210.0D		1.0		
	245	LEAR	8	S	0003.8	0003.8	.2	17.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	0029.6	0029.8	.2	85.0			QL=6 ST=2 TYP=5
	245	LEAR	47	GB	0056.0	0056.1	.1	55.0			QL=6 ST=3 TYP=5
	245	LEAR	47	GB	0119.6	0119.8	.2	55.0			QL=6 ST=2 TYP=5
	245	LEAR	8	S	0145.6	0145.8	.2	17.0			QL=6 ST=2 TYP=3
	3750	TYKW	5	S	0146.0	0149.5	8.0	4.0	1.0		
	245	LEAR	8	S	0238.1	0238.1	.2	18.0			QL=6 ST=2 TYP=3
	204	IZMI	8	S	0904.0	0904.0	.1	2000.0	1800.0		
	930	BORD	8	S	1221.5	1221.5	.1	28.0	1.0		
	2800	OTTA	1	S	1354.2	1354.5	1.0	3.4	1.5		
	2800	OTTA	23	GRF	1420.0	1650.0	280.0	3.6			
	2800	OTTA	1	S	1535.0	1537.0	10.0	2.0	1.0		
	2800	OTTA	20	GRF	1905.0	1940.0	175.0	2.4	1.6		
	245	LEAR	47	GB	2258.3	2258.3	.2	55.0			QL=6 ST=2 TYP=5
	245	LEAR	8	S	2322.6	2323.6	1.0	32.0			QL=6 ST=2 TYP=3
09	245	LEAR	43	NS	0154.8	0154.8	14.2	18.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	0233.5	0239.5	111.5D	40.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	0233.6	0236.8	10.4	30.0			QL=6 ST=2 TYP=1
	200	GORK	44	NS	0354.0E		483.0D		5.0		
	260	ONDR	43	NS	0636.0	1156.0U	453.0D	25.0			
	127	TORN	43	NS	0828.0		252.0D		2.0		V1
	204	IZMI	43	NS	0930.0		150.0D	35.0			
	245	SGMR	43	NS	1033.0	1137.3		36.0			QL=6 ST=3 TYP=1
	208	VORO	44	NS	2200.0E		240.0D		1.0		
	245	LEAR	8	S	0012.1	0012.1	.2	20.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0104.8	0105.0	.3	30.0			QL=6 ST=2 TYP=3
	3750	TYKW	28	PRE	0120.0	0143.0	23.0	2.0	1.0		
	2000	TYKW	28	PRE	0120.0	0144.0	24.0	2.0	1.0		
	2840	PEKG	20	GRF	0138.0	0149.1	127.0	12.4	3.2		
	3750	TYKW	45	C	0143.0	0148.7	45.0	14.0	12.0		
	3750	TYKW			0143.0	0200.0		14.0			
	1000	TYKW	21	GRF	0143.0	0240.0	180.0	3.0	1.5		
	2000	TYKW	45	C	0144.0	0148.4	45.0	11.0	7.0		
	9400	TYKW	20	GRF	0144.0	0202.0	120.0	16.0	6.0		
	2695	LEAR	20	GRF	0144.6	0148.6	28.4	13.0			QL=6 ST=2 TYP=2
	1415	LEAR	20	GRF	0144.6	0148.8	5.4	8.0			QL=6 ST=2 TYP=2
	15400	LEAR	20	GRF	0144.6	0150.3	28.4	17.0			QL=6 ST=2 TYP=2
	4995	LEAR	20	GRF	0144.6	0150.3	28.4	13.0			QL=6 ST=2 TYP=2
	8800	LEAR	20	GRF	0144.6	0157.1	30.0	29.0			QL=6 ST=2 TYP=2
	1000	TYKW	5	S	0146.0	0148.8	6.0	1.5	.5		
	9395	PEKG	20	GRF	0147.0	0202.0	63.0D	16.5	4.3		
	17000	NOBE	20	GRF	0156.2	0206.4	30.0	11.0	0.0		
	3750	TYKW	30	PBI	0228.0		85.0	7.0	3.5		
	2000	TYKW	30	PBI	0229.0		95.0	6.0	3.0		
	3750	TYKW	5	S	0303.5	0304.2	2.5	2.0	.7		
	2000	TYKW	5	S	0303.5	0304.6	1.5D	2.0	1.0D		
	2000	TYKW	20	GRF	0415.0	0427.5	45.0	2.0	1.0		
	2840	PEKG	20	GRF	0416.0	0429.0	36.0	2.9	.3		
	9395	PEKG	45	C	0418.0	0420.5					
	9395	PEKG			0418.0	0421.9	20.0	18.0	2.1		
	3750	TYKW	20	GRF	0424.0	0426.5	35.0	3.0	1.0		
	1000	TYKW	45	C	0426.7	0427.5	1.0	37.0	4.0		
	950	GORK	4	S/F	0426.7	0427.5	.8	37.0			
	3750	TYKW	20	GRF	0502.0	0515.0	50.0	1.5	.7		
	536	ONDR	40	F	0734.0	0855.0	156.0	7.0U			
	245	LEAR	8	S	0936.5	0936.8	.5	20.0			QL=6 ST=2 TYP=3
	650	GORK	22	GRF	0938.8	0947.5	16.2	3.0			
	1470	POTS	4	S/F	1023.8	1023.9	.7	7.0			
	6100	KISV	1	S	1023.8	1024.0	.5	3.0			
	430	KRAK	42	SER	1100.0	1152.7	72.0	180.0			
	8800	ATHN	4	S/F	1353.0	1356.5	8.0	33.0			QL=5 ST=3 TYP=3
	9400	HUAN	1	S	1353.9	1357.6	4.9	8.9	7.1		L
	2800	OTTA	4	S/F	1354.0	1356.0	6.0	16.4	7.0		
	9500	POTS	20	GRF	1354.0	1356.0	6.0	14.0			
	1470	POTS	4	S/F	1354.5	1356.5	6.5	12.0			
	4995	ATHN	4	S/F	1354.8	1356.5	5.7	20.0			QL=5 ST=3 TYP=3

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
09	2695	ATHN	4	S/F	1354.8	1356.5	5.3	15.0			QL=5 ST=3 TYP=3
	930	BORD	46	C	1355.0	1403.7	15.0	59.0	4.0		
	4995	SGMR	4	S/F	1355.3	1356.1	3.2	28.0			QL=6 ST=2 TYP=3
	2695	SGMR	4	S/F	1355.3	1356.3	2.8	29.0			QL=6 ST=2 TYP=3
	3000	POTS	4	S/F	1355.5	1356.4	4.5	16.0			
	9400	HUAN	29	PBI	1358.8	1358.8	17.0	3.5	1.8		0
	2650	DWIN	2	S/F	1400.0U		5.0U	20.0	10.0		
	2800	OTTA	29	PBI	1400.0	1400.0	60.0	3.4	1.7		
	2800	OTTA	20	GRF	1600.0	1710.0	120.0	2.8	2.0		
	2800	OTTA	21	GRF	1840.0	1935.0	130.0	3.4	1.8		
	2800	OTTA	2	S/F	1849.0	1851.0	3.0	2.4	1.2		
	3750	TYKW	5	S	2219.0	2219.9	8.0	1.5	.5		
	245	LEAR	8	S	2307.0	2307.1	.3	48.0			QL=6 ST=2 TYP=3
	3750	TYKW	20	GRF	2307.0	2326.0	30.0	2.0	1.0		
	9400	TYKW	20	GRF	2311.0	2322.0	35.0	4.0	2.0		
	245	LEAR	47	GB	2334.6	2334.6	.2	68.0			QL=6 ST=2 TYP=5
	9400	TYKW	45	C	2350.0	2351.7	4.0	15.0	7.0		
	3750	TYKW	5	S	2350.0	2351.9	4.0	10.0	5.0		
	2000	TYKW	5	S	2350.5	2351.0	3.5	4.0	2.0		
	8800	LEAR	4	S/F	2350.5	2351.6	2.6	17.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	2350.5	2351.8	2.6	13.0			QL=6 ST=2 TYP=3
	500	HIRA	46	C	2350.6	2351.0	2.0	130.0	15.0		0
	610	LEAR	47	GB	2350.8	2352.3	1.7	160.0			QL=6 ST=2 TYP=5
	410	LEAR	8	S	2350.8	2352.3	1.7	13.0			QL=6 ST=2 TYP=3
	2695	PENT	1	S	2351.0	2352.0	2.0	4.0	1.8		
	3750	TYKW	29	PBI	2354.0		30.0	3.0	1.5		
	9400	TYKW	29	PBI	2354.0		35.0	4.0	2.0		
	2000	TYKW	29	PBI	2354.0		10.0	1.5	.7		
10	245	LEAR	43	NS	0117.1	0939.1	521.9	210.0			QL=6 ST=2 TYP=1
	260	ONDR	44	NS	0622.0E		475.0D				
	200	GORK	43	NS	0709.0		246.0D		5.0		
	127	TORN	43	NS	0750.0		292.0D		2.0		VO
	410	PALE	43	NS	1730.0	1745.5	660.0D	310.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1730.0	2325.5	660.0D	150.0			QL=6 ST=2 TYP=1
	208	VORO	44	NS	2200.0E		150.0D		5.0		
	245	LEAR	44	NS	2250.0E	0534.1	668.0D	200.0			QL=6 ST=2 TYP=1
	245	LEAR	47	GB	0023.6	0023.8	.2	97.0			QL=6 ST=2 TYP=5
	1000	TYKW	21	GRF	0040.0	0255.0	340.0	7.0	3.0		
	2000	TYKW	21	GRF	0040.0	0255.0	350.0	16.0	7.0		
	9400	TYKW	20	GRF	0050.0	0103.0	60.0	6.0	3.0		
	500	HIRA	42	SER	0050.0	0104.4	49.0	7.0			WL
	410	LEAR	4	S/F	0050.1	0054.5	5.7	11.0			QL=6 ST=2 TYP=3
	245	LEAR	4	S/F	0103.1	0103.8	2.9	13.0			QL=6 ST=2 TYP=3
	410	LEAR	4	S/F	0103.1	0104.6	2.9	16.0			QL=6 ST=2 TYP=3
	2000	TYKW	5	S	0110.5	0112.3	4.5	3.0	1.0		
	3750	TYKW	5	S	0111.0	0112.5	4.0	1.5	.5		
	1000	TYKW	5	S	0111.0	0112.5	4.0	3.0	1.0		
	1000	TYKW	45	C	0115.0	0135.0	25.0	5.0	1.5		
	2000	TYKW	5	S	0117.0	0118.5	3.0	2.0	1.0		
	3750	TYKW	5	S	0117.0	0127.0	22.0	2.0	1.0		
	2000	TYKW	45	C	0120.0	0134.0	18.0	2.5	1.0		
	610	LEAR	47	GB	0146.1	0147.1	20.0	11.0			QL=6 ST=2 TYP=5
	2000	TYKW	45	C	0152.0	0154.3	8.0	9.0	5.0		
	500	HIRA	45	C	0152.0	0157.4	15.0	50.0	20.0		WR
	1000	TYKW	45	C	0152.3	0153.8	14.0	18.0	7.0		
	410	LEAR	4	S/F	0152.3	0154.0	13.5	13.0			QL=6 ST=2 TYP=3
	1415	LEAR	4	S/F	0152.8	0153.8	8.8	15.0			QL=6 ST=2 TYP=3
	3750	TYKW	45	C	0153.0	0154.4	16.0	7.0	2.0		
	245	LEAR	8	S	0155.3	0155.5	.2	11.0			QL=6 ST=2 TYP=3
	2000	TYKW	29	PBI	0200.0		10.0	3.0	1.5		
	610	LEAR	47	GB	0211.3	0217.3	10.3	50.0			QL=6 ST=2 TYP=5
	500	HIRA	45	C	0212.0	0218.0	10.0	30.0	10.0		WR
	410	LEAR	20	GRF	0212.0	0218.1	9.8	13.0			QL=6 ST=2 TYP=2
	2000	TYKW	5	S	0214.0	0217.2	9.0	6.0	1.5		
	3750	TYKW	45	C	0215.0	0217.0	8.0	2.0	.7		
	1000	TYKW	45	C	0216.7E	0217.0U	5.3D	11.0	3.0D		
	1000	TYKW	30	PBI	0222.0		28.0	3.0	1.5		
	8800	LEAR	20	GRF	0226.8	0245.1	50.2	18.0			QL=6 ST=2 TYP=2
	15400	LEAR	20	GRF	0228.0	0245.8	42.0	15.0			QL=6 ST=2 TYP=2

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
10	9395	PEKG	20	GRF	0228.0	0248.0	50.0	16.4	4.9		
	2695	LEAR	20	GRF	0228.1	0242.0	67.9	9.0			QL=6 ST=2 TYP=2
	4995	LEAR	20	GRF	0228.6	0246.0	57.4	13.0			QL=6 ST=2 TYP=2
	2000	TYKW	45	C	0229.0	0238.5	20.0	5.0	2.0		
	9400	TYKW	21	GRF	0229.0	0244.0	190.0	13.0	6.0		
	3750	TYKW	20	GRF	0229.0	0244.0	200.0	9.0	4.0		
	1000	TYKW	45	C	0233.0	0235.5	7.0	25.0	2.5		
	610	LEAR	8	S	0233.1	0234.0	1.5	24.0			QL=6 ST=2 TYP=3
	17000	NOBE	20	GRF	0236.5	0248.2	40.0	12.0	0.0		
	2840	PEKG	3	S	0246.0E	0246.6	3.0D	25.0D	2.8D		
	9400	TYKW	20	GRF	0350.0	0353.5	30.0	3.0	1.5		
	204	IZMI	41	F	0624.5	0626.0	5.0	300.0			
	3750	TYKW	21	GRF	0650.0	0703.0	50.0	3.0	1.0		
	9400	TYKW	20	GRF	0650.0	0703.0	30.0	4.0	2.0		
	2950	GORK	20	GRF	0654.0	0655.3	21.2	3.4			
	2000	TYKW	5	S	0654.0	0655.4	3.0	2.5	.7		
	2000	TYKW	21	GRF	0654.0	0705.0	30.0	1.5	.7		
	650	GORK	4	S/F	0654.3	0655.2	1.8	4.5			
	950	GORK	1	S	0654.3	0655.3	2.3	3.0			
	536	ONDR	40	F	0654.3	0655.4	24.0	7.0U	7.0		
	610	LEAR	8	S	0654.5	0654.8	1.6	23.0			QL=6 ST=2 TYP=3
	3750	TYKW	45	C	0654.5	0655.3	1.5	3.0	1.0		
	410	LEAR	8	S	0654.5	0655.5	1.8	11.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0655.0	0656.1	1.3	20.0			QL=6 ST=2 TYP=3
	2950	GORK	1	S	0726.2	0727.3	2.5	2.3			
	610	LEAR	8	S	0810.8	0811.0	.2	19.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0919.5	0919.5	.1	13.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0919.5	0919.5	.1	22.0			QL=6 ST=2 TYP=3
	536	ONDR	40	F	0934.3	0939.9	5.6U	7.0U	6.0		
	200	GORK	41	F	0936.5	0939.0	7.2	200.0D			
	200	GORK			0936.5	0942.6		200.0			
	650	GORK	21	GRF	0937.4		7.9	1.0			
	3000	POTS	4	S/F	0937.5	0939.5	4.0	13.0			
	950	GORK	1	S	0938.2	0939.7	2.6	5.0			
	204	IZMI	41	F	0938.3	0939.0	6.0	400.0			
	2950	GORK	45	C	0938.5	0939.0	1.2	6.9			
	2950	GORK			0938.5	0939.4		9.2			
	1470	POTS	4	S/F	0938.5	0939.5	2.5	9.0			
	2950	GORK	29	PBI	0938.5	0939.8	5.7	2.3			
	113	POTS	42	SER	0938.6	0943.7	8.0	200.0	5.0		III
	6100	KISV	2	S/F	0938.7	0939.5	1.5	5.0			
	1415	ATHN	8	S	0938.8	0939.6	1.3	5.0			QL=5 ST=2 TYP=3
	2695	ATHN	8	S	0938.8	0939.6	1.3	8.0			QL=5 ST=2 TYP=3
	234	POTS	42	SER	0938.8	0940.5	5.0	240.0	2.0		III
	100	GORK	41	F	0939.5E	0939.8	6.3D	250.0D			
	100	GORK			0939.5E	0942.7		170.0			
	100	GORK			0939.5E	0943.6		250.0D			
	33	UPIC	8	S	0939.8	0939.8	.3				
	29	UPIC	8	S	0939.8	0940.0	.4				
	127	TORN	7	C	0943.0	0943.6	2.5	580.0	310.0		
	536	ONDR	42	SER	1137.9	1138.1	1.7	25.0			
	430	KRAK	42	SER	1140.4	1145.5	79.0	32.0			
	430	KRAK			1140.4	1148.6		110.0			
	2800	OTTA	22	GRF	1215.0	1222.0	50.0	2.8			
	6100	KISV	2	S/F	1218.8	1219.2	1.0	5.0			
	113	POTS	4	S/F	1218.9	1219.2	.5	200.0	15.0		III
	245	SGMR	47	GB	1219.0	1219.1	.5	180.0			QL=6 ST=2 TYP=5
	410	SGMR	8	S	1219.1	1219.1	.2	20.0			QL=6 ST=2 TYP=3
	234	POTS	4	S/F	1219.1	1219.2	.5	720.0	30.0		III
	536	ONDR	8	S	1225.4	1225.4	.1	98.0			
	536	ONDR	8	S	1252.6	1252.7	.2	188.0			
	2800	OTTA	27	RF	1310.0		290.0	3.6	3.3		
	2800	OTTA	24	R	1310.0	1340.0	30.0	3.6	1.8		
	536	ONDR	8	S	1322.5	1322.5	.1	100.0			
	2800	OTTA	24P	R	1340.0		245.0	3.6			
	536	ONDR	8	S	1358.1	1358.2	.3	37.0			
	410	SGMR	47	GB	1700.3	1700.5	2.0	86.0			QL=6 ST=2 TYP=5
	610	SGMR	4	S/F	1700.8	1701.5	2.5	37.0			QL=6 ST=2 TYP=3
	610	SGMR	4	S/F	1712.3	1713.1	8.5	48.0			QL=6 ST=2 TYP=3
	610	PALE	8	S	1712.6	1713.1	1.0	34.0			QL=5 ST=2 TYP=3

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
10	610	PALE	20	GRF	1715.6	1717.0	1.7	20.0			QL=5 ST=2 TYP=2
	2800	OTTA	26	FAL	1745.0	1800.0	15.0	-3.6	-1.8		
	2800	OTTA	240	R	2000.0	2040.0	40.0	3.4	1.5		
	410	SGMR	8	S	2027.8	2028.0	.3	47.0			QL=6 ST=2 TYP=3
	610	PALE	8	S	2033.6	2034.3	1.4	20.0			QL=6 ST=2 TYP=3
	245	PALE	8	S	2114.8	2114.8	.2	38.0			QL=5 ST=2 TYP=3
	1000	TYKW	5	S	2143.0	2143.3	1.0	11.0	1.5		
	2000	TYKW	5	S	2149.0	2149.4	1.0	9.0	1.5		
	9395	PEKG	21	GRF	2324.0	2355.3	234.0	30.0	4.8		
	2695	PENT	21	GRF	2325.0	2350.0	130.0	10.8	5.4		
	2840	PEKG	22	GRF	2326.0	2338.0	179.0	14.7	3.7		
	3750	TYKW	21	GRF	2330.0	2353.0	185.0	12.0	6.0		
	2000	TYKW	21	GRF	2331.0	2350.0	130.0	7.0	3.0		
	9400	TYKW	21	GRF	2333.0	2353.0	175.0	11.0	5.0		
	500	HIRA	46	C	2333.6	2334.0	3.0	22.0	10.0		WR
	500	HIRA			2333.6	2335.9		18.0			WR
	410	LEAR	47	GB	2333.8	2334.1	3.7	51.0			QL=6 ST=2 TYP=5
	4995	LEAR	4	S/F	2333.8	2334.1	6.2	15.0			QL=6 ST=2 TYP=3
	1415	LEAR	4	S/F	2333.8	2335.1	6.2	17.0			QL=6 ST=2 TYP=3
	245	PALE	49	GB	2333.8	2335.6	2.0	1000.0			QL=5 ST=2 TYP=6
	245	LEAR	49	GB	2333.8	2335.8	5.2	790.0			QL=6 ST=2 TYP=6
	610	LEAR	4	S/F	2333.8	2336.1	3.7	20.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	2333.8	2337.3	6.2	22.0			QL=6 ST=2 TYP=3
	3750	TYKW	45	C	2333.9	2334.1	8.0	8.0	1.5		
	208	VORO	4	S/F	2334.0	2335.0	2.0	150.0D			
	2000	TYKW	45	C	2334.0	2335.2	6.0	9.0	2.0		
	1000	TYKW	45	C	2334.0	2336.2	6.0	6.0	2.0		
	2695	PENT	40	F	2334.0	2337.3	5.0	13.6			
	9400	TYKW	5	S	2337.0	2338.0	3.0	4.0	2.0		
11	410	LEAR	43	NS	0005.0	0009.1	593.0	55.0			QL=6 ST=2 TYP=1
	200	GORK	43	NS	0400.0		260.0D		5.0		
	610	LEAR	43	NS	0416.0	0418.8	72.1	75.0			QL=6 ST=2 TYP=1
	260	ONDR	44	NS	0653.0E		452.0D				
	127	TORN	43	NS	0700.0	1040.1	480.0D	550.0	3.0		V1
	245	PALE	43	NS	1650.0	2309.6	695.0D	200.0			QL=6 ST=2 TYP=1
	208	VORO	44	NS	2200.0E		240.0D		3.0		
	245	LEAR	43	NS	2252.0	0047.1	665.0D	78.0			QL=6 ST=2 TYP=1
	410	PALE	47	GB	0007.1	0007.3	.2	64.0			QL=5 ST=2 TYP=5
	3750	TYKW	5	S	0030.0	0032.0	20.0	1.5	.7		
	2000	TYKW	5	S	0031.0	0031.6	1.0	5.0	1.5		
	2000	TYKW	29	PBI	0032.0		6.0	1.5	.7		
	500	HIRA	42	SER	0035.6	0036.4	8.0	6.0			O
	9400	TYKW	5	S	0127.0	0128.3	2.0	8.0	4.0		
	9395	PEKG	1	S	0128.0	0128.7	5.0	12.0	2.8		
	9400	TYKW	29	PBI	0129.0		10.0	4.0	2.0		
	2000	TYKW	20	GRF	0200.0	0221.0	50.0	2.0	1.0		
	410	LEAR	8	S	0217.1	0217.3	.4	42.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0217.1	0217.3	.5	37.0			QL=6 ST=2 TYP=3
	610	LEAR	8	S	0217.1	0217.6	.5	17.0			QL=6 ST=2 TYP=3
	1000	TYKW	45	C	0217.2	0218.3	1.5	2.0	.5		
	1000	TYKW	5	S	0220.8	0221.0	.5	13.0	4.0		
	1000	TYKW	5	S	0221.7	0222.0	.8	13.0	3.0		
	3750	TYKW	5	S	0227.0	0228.3	4.0	3.0	1.0		
	9395	PEKG	5	S	0327.0	0329.0	5.0	27.0	4.1		
	9400	TYKW	21	GRF	0330.0	0355.0	70.0	8.0	3.0		
	3750	TYKW	45	C	0333.0	0335.7	9.0	65.0	8.0		
	3750	TYKW	21	GRF	0333.0	0348.0	140.0	4.0	2.0		
	2000	TYKW	21	GRF	0333.0	0356.0	145.0	4.0	2.0		
	1000	TYKW	21	GRF	0333.0	0410.0	135.0	2.0	1.0		
	500	HIRA	45	C	0334.0	0335.7	3.0	8.0	4.0		O
	1000	TYKW	45	C	0334.0	0335.8	12.0	8.0	2.0		
	2840	PEKG	5	S	0334.0	0336.3	5.0	55.0	6.3		
	9395	PEKG	1	S	0334.0	0336.4	6.3	30.0	3.5		
	2000	TYKW	45	C	0334.0	0355.7	21.7U	35.0	9.0		
	1415	MANI	3	S	0334.7	0335.9	2.8	11.0	3.7		
	9400	TYKW	5	S	0335.0	0335.8	4.0	25.0	7.0		
	2695	MANI	3	S	0335.0	0335.9	2.5	62.5	20.8		
	17000	NOBE	1	S	0335.1	0335.9	3.5	13.0	0.0		
	2695	PALE	8	S	0335.3	0335.6	.8	50.0			QL=6 ST=2 TYP=3

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
11	4995	PALE	8	S	0335.3	0335.6	1.0	47.0			QL=6 ST=2 TYP=3
	4995	MANI	3	S	0335.5	0335.9	2.0	64.1	21.4		
	2840	PEKG	29	PBI	0339.0	0356.0	53.0	4.1	2.8		
	9100	GORK	22	GRF	0339.0E	0358.8	130.0D	8.0			
	9395	PEKG	29	PBI	0341.0	0350.0	39.0	9.4	1.9		
	2000	TYKW	5	S	0443.0	0444.2	15.0	2.0	1.0		
	200	GORK	41	F	0504.0	0504.8	3.0	35.0			
	200	GORK			0504.0	0506.6		70.0			
	610	LEAR	47	GB	0504.1	0506.5	2.5	280.0			QL=6 ST=2 TYP=5
	650	GORK	41	F	0504.3	0504.6	3.6	40.0			
	650	GORK			0504.3	0506.6		130.0			
	1000	TYKW	45	C	0504.4	0504.8	1.5	15.0	1.5		
	950	GORK	46	C	0504.5	0506.5	3.2	113.0			
	950	GORK			0504.5	0507.4		96.0			
	245	LEAR	47	GB	0504.6	0504.6	2.2	490.0			QL=6 ST=2 TYP=5
	410	LEAR	47	GB	0504.6	0504.6	2.2	59.0			QL=6 ST=2 TYP=5
	2000	TYKW	45	C	0506.0	0506.5	2.0	8.0	2.5		
	1000	TYKW	45	C	0506.0	0506.5	2.0	130.0	10.0		
	1415	LEAR	8	S	0506.3	0506.6	1.8	19.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	0509.5	0510.8	1.8	119.0			QL=6 ST=2 TYP=5
	410	LEAR	8	S	0509.8	0510.3	1.5	19.0			QL=6 ST=2 TYP=3
	610	LEAR	47	GB	0536.0	0536.1	.3	51.0			QL=6 ST=2 TYP=5
	1000	TYKW	8	S	0536.0	0536.1	.3	19.0	6.0		
	410	LEAR	47	GB	0536.0	0536.1	.1	119.0			QL=6 ST=2 TYP=5
	245	LEAR	47	GB	0536.1	0536.1	.7	62.0			QL=6 ST=2 TYP=5
	430	KRAK	42	SER	0719.2	0753.0	36.0	37.0			
	2695	LEAR	8	S	0724.0	0724.0	.1	41.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0746.0	0746.5	2.0	40.0			QL=6 ST=2 TYP=3
	9395	PEKG	1	S	0816.0	0816.4	4.0	4.4	1.0		
	2840	PEKG	1	S	0842.0	0847.0	9.0	2.5	1.6		
	9395	PEKG	1	S	0845.0	0846.2	6.0	7.5	.7		
	430	KRAK	8	S	0858.7	0858.7	.2	29.0			
	430	KRAK	41	F	0945.0	0951.3	8.8	52.0			
	430	KRAK	42	SER	1010.5	1031.6	44.0	29.0			
	204	IZMI	4	S/F	1026.5	1027.0	1.0	55.0	32.0		
	33	UPIC	8	S	1039.8	1039.9	.4				
	29	UPIC	8	S	1040.0	1040.2	.5				
	430	KRAK	42	SER	1133.3	1219.4	72.0	80.0			
	2800	OTTA	8	S	1211.6	1211.7	.2	3.8			
	2800	OTTA	23	GRF	1235.0	1335.0	150.0	8.2	4.1		
	1470	POTS	22	GRF	1315.0	1320.5	14.0	7.0			
	3000	POTS	3	S	1315.0	1320.8		10.0			
	9400	HUAN	20	GRF	1317.3	1355.0	61.1	7.2	2.3		0
	2800	OTTA	2	S/F	1318.0	1320.5	4.0	6.8	3.4		
	113	POTS	4	S/F	1358.4	1358.8	.8	350.0	70.0		III
	410	SGMR	8	S	1506.0	1506.8	1.6	30.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1509.8	1510.3	.5	32.0			QL=6 ST=2 TYP=3
	2800	OTTA	23	GRF	1520.0	1710.0	350.0	11.8	4.9		
	2800	OTTA	46F	C	1559.0	1601.0	5.0	26.0	6.6		
	2695	SGMR	4	S/F	1559.3	1601.0	2.5	41.0			QL=6 ST=2 TYP=3
	2650	DWIN	2	S/F	1600.0U		3.0U	25.0	10.0		
	930	BORD	46	C	1600.5	1600.5	1.5	24.0	2.0		
	1415	SGMR	8	S	1600.6	1601.0	1.2	29.0			QL=6 ST=2 TYP=3
	2800	OTTA	8	S	1752.9	1753.0	.5	6.2			
	9400	HUAN	20	GRF	1847.0	1954.0	100.1	10.7	6.1		0
	2800	OTTA	20	GRF	1902.0	1908.0	12.0	4.4	2.2		
	2800	OTTA	1	S	1951.0	1953.0	4.5	3.4	2.4		
	245	PALE	47	GB	1951.1	1951.5	.7	80.0			QL=6 ST=2 TYP=5
	245	SGMR	47	GB	1951.3	1951.6	.3	60.0			QL=6 ST=2 TYP=5
	2695	PENT	22	GRF	2205.0	2336.0	215.0	13.6	6.4		
	3750	TYKW	21	GRF	2215.0	2257.5	215.0	11.0	5.0		
	2000	TYKW	20	GRF	2220.0	2340.0	180.0	8.0	3.0		
	9400	TYKW	20	GRF	2245.0	2258.0	40.0	3.0	1.5		
	245	SGMR	47	GB	2250.1	2250.5	.9	88.0			QL=6 ST=2 TYP=5
	610	SGMR	8	S	2250.1	2250.5	.7	28.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	2309.5	2309.6	.5	189.0			QL=6 ST=2 TYP=5
	610	LEAR	47	GB	2309.8	2309.8	.3	189.0			QL=6 ST=2 TYP=5
	3750	TYKW	21	GRF	2329.0	2337.0	90.0	10.0	5.0		
	9400	TYKW	20	GRF	2330.0	2337.0	85.0	14.0	6.0		
	3750	TYKW	5	S	2331.5	2332.1	2.5	4.0	1.5		

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
11	410	LEAR	8	S	2353.3	2353.3	.2	7.0			QL=6 ST=2 TYP=3
	610	LEAR	8	S	2353.3	2353.5	.5	11.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	2353.3	2353.6	.7	110.0			QL=6 ST=2 TYP=5
	410	LEAR	8	S	2356.3	2356.3	.7	17.0			QL=6 ST=2 TYP=3
	610	LEAR	8	S	2356.3	2356.6	.5	22.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	2356.3	2356.8	.7	139.0			QL=6 ST=2 TYP=5
12	200	GORK	44	NS	0358.0E		482.0D		5.0		
	260	ONDR	44	NS	0654.0E	1253.0U	437.0D	4.0U			
	245	SGMR	43	NS	1520.0	1522.8	460.0D	169.0			QL=6 ST=2 TYP=1
	410	SGMR	43	NS	1631.5	1830.8	388.5D	160.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2252.0	2258.0	665.0D	51.0			QL=6 ST=2 TYP=1
	610	LEAR	8	S	0010.0	0010.3	.8	23.0			QL=6 ST=2 TYP=3
	610	LEAR	47	GB	0027.0	0028.3	1.8	420.0			QL=6 ST=2 TYP=5
	410	LEAR	8	S	0027.0	0028.3	1.6	43.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	0027.0	0028.3	1.5	130.0			QL=6 ST=2 TYP=5
	410	LEAR	8	S	0138.5	0139.1	1.0	11.0			QL=6 ST=2 TYP=3
	1000	TYKW	5	S	0138.5	0139.3	1.5	15.0	2.5		
	245	PALE	47	GB	0138.6	0138.8	.7	390.0			QL=6 ST=2 TYP=5
	245	LEAR	47	GB	0138.6	0138.8	.9	320.0			QL=6 ST=2 TYP=5
	610	LEAR	4	S/F	0210.3	0210.3	18.0	19.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0300.8	0302.3	1.7	13.0			QL=6 ST=2 TYP=3
	1415	LEAR	8	S	0302.1	0303.0	1.0	15.0			QL=6 ST=2 TYP=3
	610	LEAR	8	S	0302.3	0303.0	.8	13.0			QL=6 ST=2 TYP=3
	3750	TYKW	20	GRF	0315.0	0323.0	90.0	3.0	1.5		
	2000	TYKW	20	GRF	0317.0	0322.0	80.0	3.0	1.0		
	610	LEAR	4	S/F	0317.5	0317.5	54.1	15.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0317.5	0317.8	.3	3.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0317.5	0317.8	.3	27.0			QL=6 ST=2 TYP=3
	9400	TYKW	20	GRF	0320.0	0335.0	90.0	4.0	2.0		
	1000	TYKW	5	S	0407.4	0407.7	.6	37.0	9.0		
	410	LEAR	8	S	0440.8	0441.1	1.3	15.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0506.0	0506.6	.8	15.0			QL=6 ST=2 TYP=3
	610	LEAR	47	GB	0506.6	0507.1	.7	180.0			QL=6 ST=2 TYP=5
	1000	TYKW	5	S	0506.7	0506.9	.7	40.0	10.0		
	9395	PEKG			0516.0	0520.9		10.6	2.6		
	9395	PEKG	45	C	0516.0	0524.0	10.0	6.8			
	650	GORK	46	C	0630.9	0633.0	5.7	50.0			
	650	GORK			0630.9	0634.3		48.0			
	2000	TYKW	45	C	0631.0	0631.4	5.0	8.0	1.0		
	1000	TYKW	45	C	0631.0	0632.4	4.0	62.0	10.0		
	950	GORK	4	S/F	0631.0	0632.8	3.6	117.0			
	2950	GORK	1	S	0631.1E	0631.4	.8D	7.0	3.5		
	610	LEAR	47	GB	0631.1	0633.0	5.0	89.0			QL=6 ST=2 TYP=5
	500	HIRA	45	C	0632.2	0634.3	3.0	25.0	15.0		WL
	2950	GORK	1	S	0727.0	0727.8	3.2	4.1	2.0		
	610	LEAR	8	S	0735.1	0735.1	.2	44.0			QL=6 ST=2 TYP=3
	536	ONDR	8	S	0808.9	0809.1	.2	19.0			
	410	LEAR	8	S	0849.1	0849.8	1.0	11.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0859.1	0859.1	1.4	25.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0859.1	0859.1	.2	10.0			QL=6 ST=2 TYP=3
	1470	POTS	23	GRF	0902.5	0903.3	7.5	10.0			
	650	GORK	41	F	0902.8	0903.1	6.2	6.0			
	650	GORK			0902.8	0907.3		31.0			
	930	BORD	46	C	0903.0	0903.1	.5	16.0	2.0		
	2950	GORK	1	S	0903.0	0906.7	5.9	3.5	1.7		
	3000	POTS	23	GRF	0903.0	0906.8	8.0	7.0			
	6100	KISV	2	S/F	0904.5	0906.6	4.0	6.0			
	536	ONDR	7	C	0905.0	0905.4	4.8	41.0	27.0		
	610	LEAR	47	GB	0905.1	0905.5	3.9	490.0			QL=6 ST=2 TYP=5
	9100	GORK	1	S	0905.5	0906.7	4.9	8.0			
	9500	POTS	3	S	0906.0	0906.5	4.0	10.0			
	950	GORK	2	S/F	0906.4E	0906.5	1.7D	6.0			
	9100	GORK	20	GRF	0919.7	1152.4	160.0D	20.0			
	410	LEAR	47	GB	0926.6	0926.8	3.2	76.0			QL=6 ST=2 TYP=5
	536	ONDR	40	F	0926.9	0927.2	3.2	44.0	26.0		
	610	LEAR	8	S	0929.1	0929.8	.7	15.0			QL=6 ST=2 TYP=3
	3000	POTS	3	S	1003.0	1003.3	1.5	9.0			
	1470	POTS	3	S	1003.0	1003.7	1.5	8.0			
	6100	KISV	2	S/F	1008.3	1009.9	4.0	5.0			

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
12	204	IZMI	8	S	1057.8	1057.8	.1	1700.0	1500.0		
	650	GORK	22	GRF	1118.7	1130.0	20.8	3.6	1.8		
	3100	CRIM	20	GRF	1123.0	1128.0	12.0	4.0	1.0		
	2950	GORK	20	GRF	1124.0	1128.0	36.0D	8.3			
	6100	KISV	20	GRF	1124.0	1147.8	80.0	9.0			
	950	GORK	20	GRF	1131.8	1140.5	30.0D	3.0			
	2800	OTTA	21	GRF	1140.0	1200.0	105.0	6.8	3.4		
	9400	HUAN	20	GRF	1141.8	1151.6	24.3	6.7	3.4		O
	33	UPIC	42	SER	1201.6	1316.3	75.4				
	29	UPIC	42	SER	1201.8	1316.1U	75.1				
	430	KRAK	8	S	1242.2	1242.2	.2	46.0			
	6100	KISV	32	ABS	1244.5	1247.3	4.0	2.0			
	8400	BERN	3	S	1248.0	1250.1	15.0D	60.0			
	9400	HUAN	3	S	1248.7	1250.2	3.5	26.8	12.9		R
	6100	KISV	4	S/F	1248.9	1250.2	3.0	31.0			
	11800	BERN	3	S	1249.0	1250.1	15.0D	25.0			
	2800	OTTA	1	S	1249.0	1250.2	3.0	7.6	2.8		
	9500	POTS	3	S	1249.0	1250.2	3.0	29.0			
	3000	POTS	3	S	1249.0	1250.2	3.0	13.0			
	4995	ATHN	47	GB	1249.5	1250.6	2.8	51.0			QL=6 ST=2 TYP=5
	4995	SGMR	47	GB	1249.8	1250.1	1.5	50.0			QL=6 ST=2 TYP=5
	8800	SGMR	8	S	1249.8	1250.1	1.0	40.0			QL=6 ST=2 TYP=3
	2695	SGMR	8	S	1250.0	1250.1	.1	17.0			QL=6 ST=2 TYP=3
	2695	ATHN	4	S/F	1250.0	1250.6	2.3	32.0			QL=6 ST=2 TYP=3
	8800	ATHN	47	GB	1250.0	1250.6	2.3	84.0			QL=6 ST=2 TYP=5
	9400	HUAN	29	PBI	1252.2	1252.2	51.8	10.0	4.0		R
	536	ONDR	4	S/F	1315.3	1316.4	4.7	27.0	7.0		
	610	SGMR	47	GB	1315.8	1316.1	.5	65.0			QL=6 ST=2 TYP=5
	410	SGMR	47	GB	1315.8	1316.1	.7	110.0			QL=6 ST=2 TYP=5
	245	SGMR	47	GB	1315.8	1316.1	.3	91.0			QL=6 ST=2 TYP=5
	245	SGMR	8	S	1323.6	1323.8	.4	71.0			QL=6 ST=2 TYP=3
	1470	POTS	3	S	1423.5	1424.7	2.0	8.0			
	4995	SGMR	8	S	1423.6	1424.5	1.7	19.0			QL=6 ST=2 TYP=3
	2695	SGMR	8	S	1423.8	1424.6	2.0	18.0			QL=6 ST=2 TYP=3
	8800	SGMR	8	S	1424.0	1424.5	.8	11.0			QL=6 ST=2 TYP=3
	2800	OTTA	3	S	1424.0	1424.9	1.6	13.6	3.4		
	610	SGMR	47	GB	1424.1	1424.6	.7	139.0			QL=6 ST=2 TYP=5
	1415	SGMR	8	S	1424.1	1424.6	.9	11.0			QL=6 ST=2 TYP=3
	930	BORD	41	F	1424.3	1424.5	1.0	21.0	2.0		
	245	SGMR	49	GB	1424.3	1424.8	.8	680.0			QL=6 ST=2 TYP=6
	234	POTS	4	S/F	1424.5	1424.8	.7	1000.0	25.0		
	3000	POTS	8	S	1424.5	1424.9	.5	11.0			
	1415	ATHN	8	S	1424.8	1425.1	.8	8.0			QL=6 ST=2 TYP=3
	2695	ATHN	8	S	1424.8	1425.1	.8	44.0			QL=6 ST=2 TYP=3
	4995	ATHN	8	S	1424.8	1425.1	.8	23.0			QL=6 ST=2 TYP=3
	8800	ATHN	8	S	1424.8	1425.1	.8	27.0			QL=6 ST=2 TYP=3
	410	SGMR	47	GB	1425.1	1425.3	.4	69.0			QL=6 ST=2 TYP=5
	2650	DWIN	1	S	1430.0U		1.0U	20.0	10.0		
	2800	OTTA	23	GRF	1435.0	1710.0	460.0	10.0	6.8		
	2800	OTTA	1	S	1457.5	1459.5	7.0	7.6	2.6		
	2650	DWIN	1	S	1500.0U		3.0U	10.0	5.0		
	245	SGMR	49	GB	1518.3	1518.5	.7	189.0			QL=6 ST=2 TYP=6
	930	BORD	41	F	1522.4	1523.6	3.6	47.0	2.0		
	410	SGMR	8	S	1539.5	1539.6	.6	22.0			QL=6 ST=2 TYP=3
	610	SGMR	49	GB	1607.5	1607.8	8.6	160.0			QL=6 ST=2 TYP=6
	9400	HUAN	45	C	1608.1	1608.5	11.3	33.5	12.7		L-O-R
	2695	SGMR	4	S/F	1608.1	1608.8	5.7	32.0			QL=6 ST=2 TYP=3
	9400	HUAN			1608.1	1613.0		41.9			
	1415	SGMR	47	GB	1608.3	1608.6	7.0	110.0			QL=6 ST=2 TYP=5
	8400	BERN	45	C	1608.3	1613.1	12.0	57.0			
	11800	BERN	45	C	1608.3	1613.4	12.0	40.0			
	930	BORD	46	C	1608.4	1608.7	8.6	233.0	6.0		
	4995	SGMR	47	GB	1608.5	1608.6	7.1	27.0			QL=6 ST=2 TYP=5
	8800	SGMR	8	S	1608.5	1608.6	.3	34.0			QL=6 ST=2 TYP=3
	2800	OTTA	46F	C	1608.5	1613.1	8.0	28.0	6.8		
	245	SGMR	47	GB	1608.6	1608.8	5.7	130.0			QL=6 ST=2 TYP=5
	4995	ATHN	8	S	1608.6	1609.1	1.5	26.0			QL=6 ST=2 TYP=3
	8800	ATHN	47	GB	1608.6	1609.1	1.9	67.0			QL=6 ST=2 TYP=5
	2695	ATHN	8	S	1608.6	1609.1	1.4	44.0			QL=6 ST=2 TYP=3
	1415	ATHN	47	GB	1608.6	1609.1	1.4	84.0			QL=6 ST=2 TYP=5

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
12	2650	DWIN	2	S/F	1610.0U		10.0U	35.0	15.0		
	15400	SGMR	8	S	1612.8	1613.5	1.0	41.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	1613.0	1613.1	.1	13.0			QL=6 ST=2 TYP=3
	4995	ATHN	4	S/F	1613.0	1614.0	3.8	38.0			QL=6 ST=2 TYP=3
	1415	ATHN	4	S/F	1613.0	1614.0	4.1	46.0			QL=6 ST=2 TYP=3
	2695	ATHN	4	S/F	1613.0	1614.0	4.1	44.0			QL=6 ST=2 TYP=3
	8800	ATHN	47	GB	1613.0	1614.0	4.1	74.0			QL=6 ST=2 TYP=5
	930	BORD	41	F	1630.8	1631.1	.5	49.0	2.0		
	2800	OTTA	8	S	1827.1	1827.1	.1	5.6			
	2800	OTTA	2	S/F	1829.0	1831.5	4.0	3.4			
	610	SGMR	49	GB	1900.3	1902.8	57.7	1699.0			QL=6 ST=2 TYP=6
	2800	OTTA	20	GRF	2103.5	2105.0	2.0	4.0	2.0		
	3750	TYKW	5	S	2315.0	2316.7	15.0	3.0	1.0		
13	410	LEAR	43	NS	0245.3	0249.8	431.7D	13.0			QL=6 ST=2 TYP=1
	260	ONDR	44	NS	0550.0E	0632.0U	42.0D	6.0U			
	208	VORO	44	NS	2200.0E		240.0D		13.0		
	245	LEAR	43	NS	2253.0	0441.1	663.0D	300.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	2253.0	2316.3	663.0D	100.0			QL=6 ST=2 TYP=1
	200	HIRA	44	NS	2327.0E	0125.0	270.0D	170.0	20.0		ML
	2840	PEKG	1	S	0017.0	0020.0	6.0	2.2	.7		
	9395	PEKG	1	S	0019.0	0020.0	9.0	10.4	2.3		
	410	LEAR	8	S	0058.0	0058.0	.1	10.0			QL=6 ST=2 TYP=3
	260	ONDR	40	F	0938.0	0939.8	39.0	6.0	5.0		
	9100	GORK	20	GRF	0957.0	1041.9	123.0D	7.0			
	930	BORD	41	F	1008.0	1010.2	2.4	16.0	2.0		
	930	BORD	41	F	1019.8	1020.2	.6	105.0	2.0		
	260	ONDR	42	SER	1030.0	1031.0	59.0	4.0	3.0		
	810	KRAK	8	S	1041.3	1041.3	.2	66.0			
	930	BORD	8	S	1100.4	1100.4	.1	16.0	1.0		
	2800	OTTA	20	GRF	1205.0	1220.0	55.0	5.8	4.0		
	260	ONDR	8	S	1224.0	1224.0	.1	12.0			
	260	ONDR	8	S	1237.0	1237.5	1.2	13.0			
	930	BORD	41	F	1242.1	1242.1	.7	16.0	1.0		
	260	ONDR	8	S	1242.1	1242.7	.8	99.0			
	430	KRAK	8	S	1242.2	1242.2	.2	46.0			
	810	KRAK	8	S	1242.2	1242.2	.2	22.0			
	260	ONDR	8	S	1255.8	1255.8	.1	7.0			
	2800	OTTA	21	GRF	1628.0	1635.0	30.0	3.8	1.9		
	2800	OTTA	2	S/F	1631.0	1632.2	4.0	5.6	2.6		
	2800	OTTA	21	GRF	1845.0	1900.0	135.0	3.8	1.9		
	2800	OTTA	20	GRF	1930.0	1935.0	28.0	4.6	2.4		
	500	HIRA	22	GRF	2221.0	2346.3	220.0	30.0	10.0		SL
14	200	GORK	44	NS	0404.0E		470.0D		5.0		
	100	GORK	44	NS	0405.0E		105.0D		5.0		
	260	ONDR	44	NS	0602.0E		485.0D	5.0U			
	127	TORN	44	NS	1020.0E	1039.6	140.0D	330.0	1.0		V1
	245	LEAR	43	NS	2253.0	2307.0	662.0D	90.0			QL=6 ST=2 TYP=1
	1000	TYKW	5	S	0044.0	0044.5	1.0	1.0	.3		
	3750	TYKW	28	PRE	0050.0	0052.5	9.5	2.0	1.5		
	200	HIRA	46	C	0057.2	0058.9	8.2	455.0	70.0		ML
	2000	TYKW	45	C	0059.0	0100.6	12.0	46.0	8.0		
	2840	PEKG			0059.0	0101.0E	18.0	49.0D			
	1000	TYKW	45	C	0059.0	0101.6	12.0	15.0	3.5		
	3750	TYKW	45	C	0059.5	0101.5	11.5	49.0	8.0		
	1415	LEAR	4	S/F	0059.8	0100.6	2.8	31.0			QL=6 ST=3 TYP=3
	2695	PENT	3	S	0059.8	0101.0	2.5	49.0	33.0		
	610	LEAR	4	S/F	0059.8	0101.0	2.8	18.0			QL=6 ST=3 TYP=3
	2695	LEAR	47	GB	0059.8	0101.1	2.8	50.0			QL=6 ST=3 TYP=5
	410	LEAR	4	S/F	0059.8	0101.1	2.3	34.0			QL=6 ST=3 TYP=3
	245	LEAR	47	GB	0059.8	0101.3	2.8	180.0			QL=6 ST=3 TYP=5
	4995	LEAR	4	S/F	0059.8	0101.5	2.8	34.0			QL=6 ST=3 TYP=3
	8800	LEAR	4	S/F	0100.0	0101.1	2.6	20.0			QL=6 ST=3 TYP=3
	9400	TYKW	45	C	0100.0	0101.3	10.0	14.0	7.0		
	15400	LEAR	4	S/F	0100.1	0101.5	2.5	18.0			QL=6 ST=3 TYP=3
	1415	MANI	4	S/F	0100.5	0102.8	3.0	57.4	19.1		
	2695	PALE	8	S	0100.6	0100.6	1.2	46.0			QL=6 ST=2 TYP=3
	1415	PALE	8	S	0100.6	0101.5	1.2	27.0			QL=6 ST=2 TYP=3
	4995	MANI	3	S	0101.0	0102.5	2.3	30.5	10.2		

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
14	8800	MANI	3	S	0101.0	0102.5	2.3	43.8	14.6		
	2695	MANI	3	S	0101.0	0102.5	2.3	59.4	19.8		
	606	MANI	3	S	0101.0	0102.5	3.5	18.9	6.3		
	2695	PENT	29	PBI	0102.3	0102.3	10.0	6.6	3.3		
	9400	TYKW	29	PBI	0110.0		10.0	4.0	2.0		
	3750	TYKW	29	PBI	0111.0		10.0	2.5	1.0		
	2000	TYKW	28	PRE	0129.0	0156.5	64.0	5.0	2.0		
	1000	TYKW	28	PRE	0130.0	0153.6	62.0	3.0	1.5		
	3750	TYKW	20	GRF	0150.0	0155.0	30.0	2.0	1.0		
	2840	PEKG	20	GRF	0155.0	0159.0	26.0	3.2	1.6		
	500	HIRA	45	C	0227.1	0300.2	42.0	80.0	35.0		MR
	1000	TYKW	45	C	0232.0	0254.7	45.0	155.0	40.0		
	3750	TYKW	45	C	0233.0	0240.4	87.0	55.0	25.0		
	2000	TYKW			0233.0	0241.6		86.0			
	2840	PEKG			0233.0	0245.0E	80.0	63.0D			
	3750	TYKW			0233.0	0253.8		39.0			
	2000	TYKW	45	C	0233.0	0256.2	37.0	87.0	24.0		
	1415	MANI	40	F	0233.5	0252.2	36.7	212.5	70.8		
	1415	LEAR	47	GB	0235.8	0301.3	35.2	88.0			QL=6 ST=3 TYP=5
	610	LEAR	47	GB	0235.8	0301.6	28.2	189.0			QL=6 ST=3 TYP=5
	1415	PALE	8	S	0236.3	0236.6	.3	23.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	0236.3	0246.6	37.7	219.0			QL=6 ST=3 TYP=5
	410	LEAR	4	S/F	0238.0	0259.3	26.0	24.0			QL=6 ST=3 TYP=3
	4995	LEAR	4	S/F	0238.1	0302.1	81.9	39.0			QL=6 ST=3 TYP=3
	8800	LEAR	4	S/F	0238.1	0306.0	81.9	43.0			QL=6 ST=3 TYP=3
	1415	PALE	47	GB	0238.5	0240.6	24.5	80.0			QL=6 ST=2 TYP=5
	2695	LEAR	47	GB	0238.8	0241.5	81.2	189.0			QL=6 ST=3 TYP=5
	606	MANI	40	F	0239.0	0302.0	31.0	181.0	60.3		
	2695	MANI	22	GRF	0240.0	0252.0	27.0	58.8	19.6		
	9400	TYKW	21	GRF	0240.0	0310.0	180.0	36.0	16.0		
	2695	PALE	47	GB	0240.1	0241.5	1.5	200.0			QL=6 ST=2 TYP=5
	15400	LEAR	4	S/F	0240.3	0311.0	89.7	36.0			QL=6 ST=3 TYP=3
	9400	TYKW	45	C	0245.0	0247.9	3.5	8.0	3.0		
	4995	PALE	4	S/F	0245.1	0245.8	17.9	20.0			QL=6 ST=2 TYP=3
	8800	PALE	4	S/F	0252.6	0254.3	10.4	19.0			QL=6 ST=2 TYP=3
	15400	PALE	8	S	0257.8	0259.1	1.3D	19.0			QL=6 ST=2 TYP=3
	4995	PALE	20	GRF	0303.0	0303.1	16.1	40.0			QL=6 ST=2 TYP=2
	8800	PALE	20	GRF	0303.0	0303.1	10.3	23.0			QL=6 ST=2 TYP=2
	1415	PALE	47	GB	0303.0	0303.1	6.6	90.0			QL=6 ST=2 TYP=5
	2695	PALE	20	GRF	0303.0	0303.3	16.1	40.0			QL=6 ST=2 TYP=2
	15400	PALE	20	GRF	0303.0	0303.3	16.1	20.0			QL=6 ST=2 TYP=2
	2000	TYKW	30	PBI	0310.0		160.0	19.0	9.0		
	1000	TYKW	29	PBI	0317.0		130.0	4.5	2.0		
	3750	TYKW	29	PBI	0400.0		100.0	18.0	9.0		
	9100	GORK	20	GRF	0400.0	0401.6	95.4	16.0			
	2000	TYKW	5	S	0417.0	0424.0	20.0	3.0	1.0		
	9400	TYKW	5	S	0453.0	0456.2	10.0	5.0	1.5		
	9100	GORK	21	GRF	0551.2	0605.5	196.0	22.0			
	6100	KISV			0600.0	0601.0		11.0			
	9400	TYKW	45	C	0600.0E	0602.8	4.0D	82.0	20.0D		
	8400	BERN	4	S/F	0600.0	0602.8	10.0	100.0			
	11800	BERN	4	S/F	0600.0	0602.8	10.0U	70.0			
	6100	KISV	46	C	0600.0	0603.0	5.0	48.0			
	6100	KISV			0600.0	0604.0		30.0			
	2840	PEKG	45	C	0600.0	0604.0	12.0	28.0	3.0		
	2000	TYKW	45	C	0600.0	0604.3	5.0D	21.0	8.0D		
	9100	GORK	46	C	0600.3	0608.7	8.4U	80.0			
	9100	GORK			0600.3	0609.8		50.0			
	2950	GORK	46	C	0600.5	0601.0	4.4	7.1			
	2950	GORK			0600.5	0602.9		24.0			
	4995	MANI	4	S/F	0600.5	0603.0	4.5	67.7	22.6		
	3100	CRIM	3	S	0600.5	0603.8	9.0	35.0	12.0		
	2950	GORK			0600.5	0603.9		28.0			
	3000	IZMI	7	C	0600.5	0604.0	5.0	38.0	27.0		
	2695	MANI	4	S/F	0600.5	0604.0	4.5	27.4	9.1		
	1415	MANI	2	S/F	0600.5	0604.3	5.5	9.8	3.3		
	4995	LEAR	47	GB	0600.6	0602.8	4.4	56.0			QL=6 ST=2 TYP=5
	8800	LEAR	47	GB	0600.6	0602.8	4.9	99.0			QL=6 ST=2 TYP=5
	950	GORK	2	S/F	0601.8	0604.3	4.0	6.0			
	15000	KISV	46	C	0602.0	0603.0	7.0	54.0			

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
14	8800	MANI	4	S/F	0602.0	0603.0	3.0	94.2	31.4		
	15000	KISV			0602.0	0604.0		30.0			
	17000	NOBE	1	S	0602.1	0602.8	2.5	32.0	1.0		
	15400	LEAR	4	S/F	0602.3	0602.8	3.2	46.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	0602.3	0603.6	2.7	40.0			QL=6 ST=2 TYP=3
	200	GORK	41	F	0602.3	0604.8	6.3	70.0D			
	200	GORK			0602.3	0606.7		30.0			
	1415	LEAR	4	S/F	0602.6	0604.1	2.4	17.0			QL=6 ST=2 TYP=3
	650	GORK	4	S/F	0602.8	0604.3	3.3	7.3			
	3750	TYKW	45	C	0603.0E	0603.9	2.0D	33.0	16.0D		
	1000	TYKW	45	C	0603.0E	0604.0	4.0D	9.0	3.0D		
	500	HIRA	45	C	0603.4	0603.6	.7	135.0	60.0		O
	100	GORK	41	F	0603.9	0604.6	1.3	150.0D			
	200	HIRA	45	C	0604.1	0604.5	1.0	110.0	54.0		O
	100	HIRA	46	C	0604.1	0604.6	1.0	540.0	60.0		WR
	204	IZMI	5	S	0604.3	0604.5	.8	130.0	100.0		
	245	LEAR	47	GB	0604.5	0604.6	.3	100.0			QL=6 ST=2 TYP=5
	2950	GORK	29	PBI	0604.9	0605.0	10.4	4.1			
	3750	TYKW	29	PBI	0605.0		15.0	4.0	2.0		
	6100	KISV	29	PBI	0605.0	0605.0	20.0	7.0			
	9400	TYKW	29	PBI	0607.0E		10.0D	8.0D	3.0D		
	2000	TYKW	29	PBI	0608.0E		12.0D	3.0D	1.0D		
	3100	CRIM	26	FAL	0639.0	0924.0		12.0			
	3750	TYKW	5	S	0724.0	0726.6	7.0	3.0	1.0		
	204	IZMI	41	F	0724.0	0734.0	21.0	180.0			
	2000	TYKW	5	S	0725.0	0727.0	9.0	2.0	.5		
	610	LEAR	47	GB	0810.5	0810.6	.6	77.0			QL=6 ST=2 TYP=5
	29	UPIC	45	C	0826.9	0827.1	.7				
	33	UPIC	45	C	0827.0	0827.1	.9				
	430	KRAK	42	SER	1016.1	1151.4	164.0	220.0			
	430	KRAK			1016.1	1256.9		190.0			
	100	GORK	41	F	1114.0	1114.2	1.8	290.0D			
	100	GORK			1114.0	1114.8		290.0D			
	2800	OTTA	46F	C	1153.3	1156.7	3.4D	36.0	9.8		
	3100	CRIM	3	S	1154.5	1156.6	3.0	41.0	14.0		
	6100	KISV			1154.9	1155.5		7.0			
	6100	KISV	45	C	1154.9	1156.6	2.0	12.0			
	2800	OTTA	27	RF	1155.0		165.0	2.8	2.6		
	2950	GORK	46	C	1155.0	1155.4	2.5	154.0			
	950	GORK	2	S/F	1155.0	1155.4	2.5	16.0			
	2950	GORK			1155.0	1156.4		39.0			
	3000	POTS	4	S/F	1155.0	1156.8	3.0	34.0			
	2650	DWIN	2	S/F	1155.0	1157.0	3.0	35.0	15.0		
	2800	OTTA	24	R	1155.0	1200.0	5.0	2.8			
	2695	SGMR	47	GB	1155.3	1156.6	1.8	51.0			QL=6 ST=2 TYP=5
	9100	GORK	22	GRF	1155.3	1156.7	7.0D	16.0			
	3000	IZMI	4	S/F	1155.3	1156.8	2.5	43.0	26.0		
	15000	KISV	3	S	1155.5	1156.4	4.0	16.0			
	1470	POTS	4	S/F	1155.5	1157.0	2.5	21.0			
	2695	ATHN	4	S/F	1155.6	1156.3	2.5	37.0			QL=6 ST=2 TYP=3
	1415	ATHN	4	S/F	1155.6	1156.3	2.5	13.0			QL=6 ST=2 TYP=3
	4995	ATHN	4	S/F	1155.6	1156.3	2.5	22.0			QL=6 ST=2 TYP=3
	8800	ATHN	4	S/F	1155.6	1156.3	2.5	16.0			QL=6 ST=2 TYP=3
	9500	POTS	3	S	1156.0	1156.8	1.2	15.0			
	1415	SGMR	8	S	1156.1	1156.6	.7	29.0			QL=6 ST=2 TYP=3
	6100	KISV	29	PBI	1156.1	1157.3	15.0	5.0			
	4995	SGMR	8	S	1156.3	1156.5	.3	32.0			QL=6 ST=2 TYP=3
	8800	SGMR	8	S	1156.3	1156.6	.3	20.0			QL=6 ST=2 TYP=3
	2950	GORK	29	PBI	1157.6	1157.6	5.0D	4.7			
	2800	OTTA	24P	R	1200.0		140.0	2.8			
	127	TORN	8	S	1303.8	1304.1	.8	40.0	20.0		
	113	POTS	4	S/F	1303.9	1304.0	.4	250.0	50.0		III
	2800	OTTA	21	GRF	1320.0	1340.0	45.0	3.6	1.8		
	1470	POTS	4	S/F	1322.0	1322.5	1.8	30.0			
	2800	OTTA	1	S	1333.0	1334.0	2.5	3.2	1.6		
	2800	OTTA	26	FAL	1420.0	1445.0	25.0	-2.8	-1.4		
	113	POTS	4	S/F	1447.8	1448.0	.3	110.0	12.0		III
	2840	PEKG	1	S	2330.0	2330.9	2.0	14.7	1.8		
15	208	VORO	44	NS	0110.0E		50.0D		2.0		

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
15	200	GORK	44	NS	0351.0E		450.0D		5.0		
	100	GORK	43	NS	0431.0		31.0		5.0		
	260	ONDR	44	NS	0606.0E	1047.0U	484.0D	4.0U			
	245	PALE	43	NS	1648.0	0249.0	693.0D	35.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2305.0	0226.6	649.0	130.0			QL=6 ST=2 TYP=1
	410	LEAR	8	S	0314.5	0314.8	.5	18.0			QL=6 ST=2 TYP=3
	9400	TYKW	21	GRF	0341.0U	0510.0	190.0U	8.0	4.0		RAIN
	2000	TYKW	21	GRF	0345.0	0500.0	190.0	4.0	1.5		
	3750	TYKW	21	GRF	0350.0	0500.0	190.0	7.0	2.5		
	1000	TYKW	45	C	0355.0	0435.2	75.0	11.0	5.0		
	610	LEAR	20	GRF	0411.0	0458.0	77.0	37.0			QL=6 ST=2 TYP=2
	950	GORK	22	GRF	0411.3	0446.7	51.7D	9.4			
	650	GORK	22	GRF	0411.4		52.0D				
	500	HIRA	27	RF	0416.0	0504.0	68.0	36.0	15.0		MR
	410	LEAR	20	GRF	0421.0	0505.3	66.1	41.0			QL=6 ST=2 TYP=2
	100	HIRA	27	RF	0431.0	0505.0	78.0	18.0	4.0		O
	245	LEAR	20	GRF	0433.6	0507.8	60.0	25.0			QL=6 ST=2 TYP=2
	260	HIRA	27	RF	0453.0	0506.0	58.0	16.0	5.0		WR
	1000	TYKW	30	PBI	0510.0		110.0	3.0	1.5		
	9400	TYKW	5	S	0512.5	0512.7	.8	5.0	1.5		
	6100	KISV	1	S	0512.5	0512.7	.5	3.0			
	2695	LEAR	8	S	0512.6	0512.6	.4	23.0			QL=6 ST=2 TYP=3
	1000	TYKW	5	S	0512.6	0512.7	.5	16.0	4.0		
	2000	TYKW	5	S	0512.6	0512.7	1.0	13.0	3.0		
	2950	GORK	3	S	0512.6	0512.7	.4	18.8	9.0		
	3750	TYKW	5	S	0512.6	0512.7	.8	10.0	2.5		
	3100	CRIM	1	S	0513.3	0513.4	1.0	17.0	5.0		
	430	KRAK	8	S	0817.8	0817.8	.2	17.0			
	810	KRAK	42	SER	1042.3	1054.0	13.3	45.0			
	430	KRAK	42	SER	1042.5	1054.1	12.7	115.0			
	2800	OTTA	8	S	1240.0	1240.2	.5	25.0	12.5		
	930	BORD	46	C	1321.8	1322.1	1.0	14.0	2.0		
	930	BORD	41	F	1801.2	1801.7	2.8	56.0	2.0		
	2800	OTTA	1	S	2125.5	2126.0	6.0	3.0	1.0		
	2000	TYKW	5	S	2125.5	2126.2	6.0	2.0	1.0		
	3750	TYKW	5	S	2125.5	2126.4	4.0	3.0	1.0		
16	260	ONDR	44	NS	0552.0E	1310.0U	498.0D	8.0U			
	410	PALE	43	NS	1645.0	1728.1	705.0D	30.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1645.0	1852.6	705.0D	119.0			QL=6 ST=2 TYP=1
	200	HIRA	44	NS	2004.0E	0320.0	780.0D	20.0	5.0		WL
	208	VORO	44	NS	2200.0E		240.0D		1.0		
	245	LEAR	43	NS	2254.0	0222.3	659.0D	100.0			QL=6 ST=2 TYP=1
	9400	TYKW	45	C	0102.0	0108.2	9.0	29.0	9.0		
	200	HIRA	42	SER	0226.3	0226.8	4.0	140.0			O
	245	PALE	47	GB	0226.8	0227.0	.5	130.0			QL=6 ST=2 TYP=5
	410	PALE	47	GB	0226.8	0229.5	3.2	68.0			QL=6 ST=3 TYP=5
	410	LEAR	47	GB	0228.8	0229.3	1.5	58.0			QL=6 ST=2 TYP=5
	245	LEAR	47	GB	0228.8	0229.5	1.3	280.0			QL=6 ST=2 TYP=5
	430	KRAK	42	SER	0829.0	0849.8	29.5	36.0			
	33	UPIC	42	SER	0902.9	1023.1	82.0				
	29	UPIC	42	SER	0903.0	1023.5	81.2				
	204	IZMI	5	S	1023.1	1023.2	.5	350.0	200.0		
	430	KRAK	8	S	1023.2	1023.3	.3	170.0			
	113	POTS	4	S/F	1023.4	1023.4	.2	100.0	20.0		III
	430	KRAK	42	SER	1206.1	1248.6	57.0	29.0			
	113	POTS	4	S/F	1310.1	1310.9	1.3	140.0	10.0		III
	2800	OTTA		S	1402.0	1417.0	15.0D	3.0			
	9400	HUAN	3	S	1415.5	1416.6	2.0	45.4	15.1		R
	3000	POTS	40	F	1415.5	1416.8	3.0	6.0			
	3000	POTS			1415.5	1417.7					
	15400	SGMR	47	GB	1415.6	1416.8	4.0	31.0			QL=6 ST=2 TYP=5
	4995	SGMR	8	S	1415.8	1416.8	1.5	31.0			QL=6 ST=2 TYP=3
	245	SGMR	47	GB	1416.0	1416.6	1.1	310.0			QL=6 ST=2 TYP=5
	11800	BERN	4	S/F	1416.0	1416.8	2.0	45.0			
	1470	POTS	1	S	1416.0	1417.0	2.0	3.0			
	234	POTS	4	S/F	1416.2	1416.7	.8	340.0	10.0		III
	113	POTS	42	SER	1416.2	1420.6	5.3	200.0	2.0		III
	8400	BERN	4	S/F	1416.3	1416.8	1.0	60.0			
	4995	ATHN	8	S	1416.3	1417.0	1.5	24.0			QL=6 ST=2 TYP=3

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
16	8800	ATHN	4	S/F	1416.3	1417.0	2.2	45.0			QL=6 ST=2 TYP=3
	9500	POTS	3	S	1416.5	1416.7	1.0	28.0			
	8800	SGMR	8	S	1416.6	1416.8	.2	31.0			QL=6 ST=2 TYP=3
	15400	PALE	8	S	1715.6	1715.8	.5	23.0			QL=5 ST=2 TYP=3
	245	SGMR	8	S	1842.8	1843.0	.3	28.0			QL=6 ST=2 TYP=3
	2800	OTTA	20	GRF	1850.0	1852.0	35.0	2.2	1.1		
	610	PALE	47	GB	1851.1	1851.6	1.0	73.0			QL=6 ST=2 TYP=5
	610	SGMR	8	S	1851.1	1851.8	1.0	47.0			QL=6 ST=2 TYP=3
	410	SGMR	4	S/F	1851.1	1853.0	3.4	37.0			QL=6 ST=2 TYP=3
	410	PALE	47	GB	1851.1	1853.0	2.7	61.0			QL=6 ST=2 TYP=5
	245	SGMR	47	GB	1852.6	1852.8	1.5	60.0			QL=6 ST=2 TYP=5
	245	PALE	47	GB	1853.1	1853.3	.7	93.0			QL=6 ST=2 TYP=5
	245	PALE	47	GB	2055.6	2055.8	.4	90.0			QL=6 ST=2 TYP=5
	245	SGMR	47	GB	2055.6	2055.8	.4	60.0			QL=6 ST=2 TYP=5
	2800	OTTA	1	S	2125.0	2125.5	3.0	5.2	1.7		
	2000	TYKW	5	S	2125.0	2125.6	3.0	18.0	4.0		
	9400	TYKW	5	S	2125.0	2125.6	1.5	8.0	2.5		
	1000	TYKW	45	C	2125.0	2125.6	4.0	6.0	1.5		
	3750	TYKW	5	S	2125.0	2125.6	3.0	8.0	1.5		
	1415	PALE	8	S	2125.1	2125.5	.7	25.0			QL=6 ST=2 TYP=3
	410	PALE	8	S	2126.6	2126.8	1.2	45.0			QL=6 ST=2 TYP=3
	410	SGMR	8	S	2126.6	2126.8	.4	19.0			QL=6 ST=2 TYP=3
	245	PALE	47	GB	2126.8	2127.5	1.0	219.0			QL=6 ST=2 TYP=5
	245	SGMR	47	GB	2127.1	2127.3	.5	119.0			QL=6 ST=2 TYP=5
	610	SGMR	8	S	2127.1	2127.5	.9	10.0			QL=6 ST=2 TYP=3
	610	PALE	8	S	2127.5	2127.8	.5	13.0			QL=6 ST=2 TYP=3
	245	PALE	47	GB	2141.6	2141.8	.7	150.0			QL=6 ST=2 TYP=5
	245	SGMR	47	GB	2141.6	2142.0	.9	70.0			QL=6 ST=2 TYP=5
17	100	HIRA	43	NS	0122.0	0150.0	110.0D	160.0	20.0		SL
	200	GORK	44	NS	0358.0E		345.0D		15.0		
	100	GORK	43	NS	0445.0		190.0D		5.0		
	260	ONDR	44	NS	0556.0E	0743.0U	498.0D	8.0U			
	127	TORN	43	NS	0708.0		418.0D		2.0		V1,DISTURBED
	410	PALE	43	NS	1645.0	0123.3	705.0D	250.0			QL=6 ST=2 TYP=1
	245	PALE	43	NS	1645.0	0241.5	705.0D	119.0			QL=6 ST=2 TYP=1
	200	HIRA	44	NS	2004.0E	0004.0	710.0D	18.0	5.0		ML
	208	VORO	44	NS	2200.0E		240.0D		6.0		
	100	HIRA	43	NS	2200.0	0025.0	660.0D	25.0	10.0		ML
	245	LEAR	43	NS	2254.0	0402.8	658.0D	200.0			QL=6 ST=2 TYP=1
	1000	TYKW	5	S	0046.7	0046.9	.5	5.0	1.5		
	2840	PEKG	45	C	0047.0	0050.4	11.0	34.9	4.6		
	3750	TYKW	28	PRE	0100.0	0105.0	5.0	2.0	1.0		
	1000	TYKW	45	C	0101.0	0101.5	4.0	8.0	1.5		
	2000	TYKW	28	PRE	0101.0	0102.8	5.0	4.0	1.5		
	9400	TYKW	45	C	0102.0	0108.2	9.0	29.0	9.0		
	3750	TYKW	45	C	0105.0	0108.2	6.0	49.0	16.0		
	2695	PENT	4	S/F	0105.0	0108.3	6.0	25.0	9.0		
	1000	TYKW	45	C	0106.0	0107.9	4.0	33.0	7.0		
	2000	TYKW	45	C	0106.0	0108.3	5.0	33.0	10.0		
	2695	LEAR	4	S/F	0106.1	0108.3	4.4	35.0			QL=6 ST=2 TYP=3
	1415	LEAR	4	S/F	0106.3	0107.6	3.3	32.0			QL=6 ST=2 TYP=3
	8800	LEAR	4	S/F	0106.3	0108.1	4.5	36.0			QL=6 ST=2 TYP=3
	610	LEAR	4	S/F	0106.3	0108.1	3.3	46.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	0106.3	0108.1	4.3	42.0			QL=6 ST=2 TYP=3
	1415	MANI	4	S/F	0106.4	0108.0	3.6	56.4	18.8		
	2695	MANI	3	S	0106.5	0108.5	3.5	40.3	13.4		
	4995	PALE	4	S/F	0106.6	0108.1	2.5	43.0			QL=6 ST=2 TYP=3
	4995	MANI	3	S	0106.8	0108.5	3.7	79.6	26.5		
	8800	MANI	3	S	0106.8	0108.5	3.7	54.9	18.3		
	500	HIRA	46	C	0107.5	0107.6	1.0	36.0	12.0		ML
	1415	PALE	8	S	0107.6	0108.3	1.0	27.0			QL=6 ST=2 TYP=3
	8800	PALE	8	S	0107.8	0108.1	.8	28.0			QL=6 ST=2 TYP=3
	15400	LEAR	8	S	0107.8	0108.3	1.8	17.0			QL=6 ST=2 TYP=3
	2695	PALE	8	S	0108.3	0108.3	.2	17.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0109.3	0110.0	.8	15.0			QL=6 ST=2 TYP=3
	1000	TYKW	29	PBI	0110.0		120.0	1.5	.5		
	9400	TYKW	29	PBI	0111.0		30.0	10.0	4.0		
	3750	TYKW	29	PBI	0111.0		80.0	6.0	2.0		
	2000	TYKW	29	PBI	0111.0		140.0	3.0	1.5		

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
17	2000	TYKW	21	GRF	0450.0	0640.0	220.0	3.0	1.5		
	3750	TYKW	21	GRF	0550.0	0636.0	150.0	5.0	2.0		
	2840	PEKG	20	GRF	0630.0	0634.9	24.0	3.1	1.0		
	9400	TYKW	20	GRF	0630.0	0640.0	40.0	4.0	2.0		
	2000	TYKW	5	S	0632.3	0632.7	1.0	6.0	2.0		
	3750	TYKW	20	GRF	0710.0	0740.0	50.0	3.0	1.0		
	2000	TYKW	21	GRF	0720.0	0740.0	50.0	2.0	1.0		
	2000	TYKW	45	C	0757.0	0757.2	1.5	2.0	1.0		
	1470	POTS	4	S/F	0757.0	0757.3	1.5	6.0			
	1000	TYKW	45	C	0757.0	0757.6	1.5	1.5	.5		
	2840	PEKG	2	S/F	0757.0	0757.8	2.0	2.1	.5		
	430	KRAK	41	F	0912.2	0914.7	4.6	22.0			
	810	KRAK	40	F	1229.7	1231.0	2.0	100.0			
	810	KRAK	40	F	1230.0	1231.5	1.7	27.0			
	430	KRAK	42	SER	1248.2	1256.4	8.6	40.0			
	2800	OTTA	20	GRF	1505.0	1540.0	180.0	3.4	2.4		
	2800	OTTA	20	GRF	1920.0	2020.0	150.0	3.4	2.0		
	2695	PENT	20	GRF	2230.0	2235.0	30.0	2.4	1.2		
	9400	TYKW	5	S	2233.0	2235.0	20.0	5.0	2.0		
	3750	TYKW	20	GRF	2233.0	2236.0	90.0	2.0	1.0		
18	200	GORK	43	NS	0407.8		352.0D		5.0		
	100	GORK	43	NS	0410.0		245.0D		5.0		
	260	ONDR	44	NS	0648.0E	1300.0U	444.0D	6.0U			
	245	PALE	43	NS	1645.0	1745.0	695.0D	80.0			QL=6 ST=2 TYP=1
	410	PALE	43	NS	1645.0	2115.0	695.0D	66.0			QL=6 ST=2 TYP=1
	100	HIRA	44	NS	2004.0E	2325.0	240.0D	40.0	15.0		WL
	200	HIRA	43	NS	2055.0	2320.0	150.0D	10.0	2.0		WL
	208	VORO	44	NS	2200.0E		140.0D		1.0		
	245	LEAR	43	NS	2354.0	2337.6	597.0D	20.0			QL=6 ST=2 TYP=1
	208	VORO	41	F	0130.0	0131.0	4.0	200.0D			
	245	LEAR	47	GB	0130.1	0130.3	1.0	73.0			QL=6 ST=2 TYP=5
	1000	TYKW	45	C	0208.0	0214.1	10.0	4.0	.7		
	2000	TYKW	45	C	0210.0	0214.0	5.0	4.0	1.5		
	3750	TYKW	20	GRF	0210.0	0216.0	30.0	1.5	.7		
	2000	TYKW	29	PBI	0215.0		15.0	1.0	.5		
	245	LEAR	47	GB	0219.3	0219.5	1.5	100.0			QL=6 ST=2 TYP=5
	245	PALE	47	GB	0324.6	0324.8	.4	78.0			QL=6 ST=2 TYP=5
	245	LEAR	47	GB	0327.3	0327.6	.8	100.0			QL=6 ST=2 TYP=5
	245	PALE	47	GB	0327.3	0327.6	.8	150.0			QL=6 ST=2 TYP=5
	245	PALE	8	S	0341.0	0341.1	.3	24.0			QL=5 ST=2 TYP=3
	245	PALE	47	GB	0343.8	0343.8	.3	119.0			QL=6 ST=2 TYP=5
	200	GORK	46	C	0358.0	0359.3	9.9	270.0D			
	245	PALE	47	GB	0358.0	0400.1	6.5	270.0			QL=5 ST=2 TYP=5
	200	GORK			0358.0	0402.9		290.0D			
	100	GORK	41	F	0403.0	0403.5	4.8	1360.0D			
	100	GORK			0403.0	0405.9		14700.0D			
	100	GORK			0403.0	0406.6		14700.0D			
	100	GORK			0403.0	0407.3		14700.0D			
	3750	TYKW	5	S	0437.0	0439.0	20.0	1.5	.7		
	200	GORK	41	F	0523.5	0524.0	23.4	60.0D			
	200	GORK			0523.5	0540.0		60.0D			
	200	GORK			0523.5	0545.3		360.0			
	100	GORK	45	C	0523.6	0523.9	1.4	1360.0D			
	100	GORK			0523.6	0524.1		1360.0D			
	245	LEAR	47	GB	0524.8	0525.1	.5	169.0			QL=6 ST=2 TYP=5
	410	LEAR	8	S	0525.0	0525.1	.3	15.0			QL=6 ST=2 TYP=3
	100	GORK	41	F	0539.8	0540.1	6.5	1370.0D			
	100	GORK			0539.8	0544.4		1370.0D			
	113	POTS	42	SER	0540.7	0546.0	6.8	200.0	3.0		III
	245	LEAR	47	GB	0544.5	0546.3	3.6	180.0			QL=6 ST=2 TYP=5
	650	GORK	41	F	0545.0	0545.1	2.0	7.0			
	410	LEAR	4	S/F	0545.0	0547.1	3.1	19.0			QL=6 ST=2 TYP=3
	100	HIRA	46	C	0545.2	0546.0	2.0	4000.0	350.0		WL
	200	HIRA	46	C	0545.2	0546.0	2.0	390.0	70.0		WL
	610	LEAR	8	S	0545.8	0546.1	1.3	18.0			QL=6 ST=2 TYP=3
	245	LEAR	4	S/F	0648.0	0650.6	6.8	35.0			QL=6 ST=2 TYP=3
	410	LEAR	4	S/F	0649.0	0652.0	3.6	6.0			QL=6 ST=2 TYP=3
	1000	TYKW	5	S	0649.6	0650.2	1.1	5.0	1.5		
	113	POTS	4	S/F	1133.7	1134.8	1.5	140.0	15.0		III

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
18	204	IZMI	4	S/F	1134.0	1134.5	1.5	125.0	90.0		
	33	UPIC	42	SER	1134.0	1254.7	81.0				
	29	UPIC	42	SER	1134.2	1254.8	80.8				
	113	POTS	4	S/F	1207.8	1207.8	.2	140.0	35.0		III
	430	KRAK	8	S	1209.4	1209.5	.2	120.0			
	9400	HUAN	22	GRF	1524.2	1618.3	63.4	8.5	2.0		O
	2800	OTTA	20	GRF	1600.0	1625.0	50.0	2.4	1.2		
	930	BORD	8	S	1611.5	1611.9	.8	21.0	3.0		
	2800	OTTA	20	GRF	1900.0	2050.0	125.0	3.0	1.5		
	2695	PENT	21	GRF	2210.0	2330.0	200.0	7.4	3.6		
	3750	TYKW	21	GRF	2220.0	2310.0	180.0	4.0	2.0		
	9400	TYKW	21	GRF	2230.0	2302.0	120.0	7.0	3.0		
	2000	TYKW	21	GRF	2230.0	2310.0	120.0	2.0	1.0		
	1000	TYKW	45	C	2252.0	2254.0	4.0	2.0	.5		
	3750	TYKW	45	C	2252.0	2254.1	11.0	16.0	3.0		
	2000	TYKW	5	S	2252.0	2254.2	5.0	11.0	4.0		
	9400	TYKW	5	S	2253.0	2254.0	5.0	5.0	2.0		
	2695	PENT	3	S	2253.5	2254.2	4.0	15.0	5.0		
	4995	PALE	8	S	2253.6	2254.0	.5	21.0			QL=6 ST=2 TYP=3
	2695	PALE	8	S	2253.8	2254.0	.8	22.0			QL=6 ST=2 TYP=3
	2000	TYKW	45	C	2258.0	2301.2	6.0	4.0	1.5		
	2695	PENT	1	S	2301.0	2301.2	2.0	3.0	1.5		
	1000	TYKW	45	C	2311.0	2313.3	15.0	30.0	9.0		
	2000	TYKW	45	C	2311.0	2317.0	12.0	25.0	8.0		
	2840	PEKG	45	C	2311.0	2317.0	14.0	24.6	3.4		
	100	HIRA	41	F	2312.0	2315.6	6.2	490.0			WL
	2695	PENT	46F	C	2312.0	2317.0	13.0	22.0	6.4		
	9400	TYKW	45	C	2312.0	2317.0	11.0	7.0	2.5		
	3750	TYKW	45	C	2312.0	2317.4	12.0	19.0	4.0		
	1415	MANI	22	GRF	2312.0	2318.0	11.0	39.0	13.0		
	500	HIRA	46	C	2312.4	2320.5	17.0	460.0	60.0		WL
	410	LEAR	47	GB	2312.8	2313.1	14.5	24.0			QL=6 ST=2 TYP=5
	610	PALE	47	GB	2312.8	2314.3	12.8	40.0			QL=6 ST=2 TYP=5
	610	LEAR	47	GB	2312.8	2314.3	14.5	32.0			QL=6 ST=2 TYP=5
	410	PALE	47	GB	2312.8	2315.6	10.5	30.0			QL=6 ST=2 TYP=5
	2695	PALE	4	S/F	2313.3	2313.6	9.7	20.0			QL=6 ST=2 TYP=3
	1415	LEAR	4	S/F	2313.3	2314.0	14.0	37.0			QL=6 ST=2 TYP=3
	1415	PALE	4	S/F	2313.3	2314.0	7.8	38.0			QL=6 ST=2 TYP=3
	4995	PALE	4	S/F	2313.3	2314.3	12.3	19.0			QL=6 ST=2 TYP=3
	8800	PALE	47	GB	2314.3	2315.1	11.3	30.0			QL=6 ST=2 TYP=5
	606	MANI	22	GRF	2314.5	2321.5	12.0	38.9	12.9		
	15400	PALE	4	S/F	2315.8	2316.8	3.7	28.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	2316.1	2316.8	11.2	34.0			QL=6 ST=2 TYP=3
	2000	TYKW	29	PBI	2323.0		40.0	2.0	1.0		
	3750	TYKW	29	PBI	2324.0		50.0	2.0	1.0		
19	200	GORK	43	NS	0608.0		181.0D		5.0		
	100	GORK	43	NS	0709.0		87.0D		5.0		
	260	ONDR	44	NS	0709.0E	1216.0U	429.0D	10.0U			
	33	UPIC	43	NS	1020.0		328.9				
	33	UPIC	43	NS	1020.0		328.9D				
	29	UPIC	43	NS	1020.2		327.8D				
	29	UPIC	43	NS	1020.2		327.8				
	245	LEAR	43	NS	2332.8	0137.6	618.2D	91.0			QL=6 ST=2 TYP=1
	9375	PEKG	40	F	0132.0	0148.4	19.0	24.7	3.1		
	1000	TYKW	5	S	0305.9	0306.0	.5	3.0	1.0		
	9100	GORK	21	GRF	0414.8	0423.4	465.0D	30.0			
	2950	GORK	21	GRF	0415.0	0427.6	465.0D	9.6			
	950	GORK	23	GRF	0415.3	0424.6	16.0	8.0			
	8800	ATHN	47	GB	0415.6	0421.1	9.0	82.0			QL=2 ST=2 TYP=5
	4995	ATHN	47	GB	0415.8	0421.1	9.3	58.0			QL=2 ST=2 TYP=5
	9400	TYKW	45	C	0416.0	0419.5	12.0	78.0	32.0		INTERFERENCE
	9375	PEKG	45	C	0416.0	0419.5	23.0	85.0	9.2		
	1000	TYKW	45	C	0416.0	0419.8	15.0	17.0	5.0		
	2840	PEKG	45	C	0416.0	0420.8	19.0	19.2	4.1		
	3750	TYKW	45	C	0416.0	0420.9	14.0	35.0	15.0		
	2695	ATHN	4	S/F	0416.0	0421.1	7.1	27.0			QL=2 ST=2 TYP=3
	2000	TYKW	45	C	0416.0	0423.5	14.0	15.0	4.0		
	8800	LEAR	47	GB	0416.5	0419.3	30.5	93.0			QL=6 ST=2 TYP=5
	4995	LEAR	47	GB	0416.5	0420.8	30.5	56.0			QL=6 ST=2 TYP=5

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
19	15400	LEAR	47	GB	0417.0	0419.3	30.0	51.0			QL=6 ST=2 TYP=5
	8800	MANI	4	S/F	0417.0	0420.0	7.0	94.4	31.5		
	4995	MANI	4	S/F	0417.0	0421.5	11.0	85.1	28.4		
	650	GORK	23	GRF	0417.0	0427.6	26.0	3.8			
	17000	NOBE	7	C	0417.3	0419.5	5.7	38.0	0.0		
	9100	GORK	46	C	0417.7	0419.4	4.9	63.0			
	9100	GORK			0417.7	0420.8		47.0			
	610	LEAR	47	GB	0418.1	0420.6	16.9	61.0			QL=6 ST=2 TYP=5
	200	HIRA	46	C	0418.4	0428.0	10.6	7.0	2.0		0
	2695	LEAR	4	S/F	0418.8	0419.1	14.2	33.0			QL=6 ST=2 TYP=3
	650	GORK	4	S/F	0418.8	0420.5	8.7	49.0			
	1415	LEAR	4	S/F	0418.8	0423.3	10.7	17.0			QL=6 ST=2 TYP=3
	950	GORK	46	C	0418.9	0419.2	3.0	11.0			
	2950	GORK	40	F	0418.9	0419.3	.7	29.0			
	950	GORK			0418.9	0419.8		11.0			
	950	GORK			0418.9	0421.7		5.5			
	500	HIRA	46	C	0419.0	0423.4	12.0	80.0	30.0		MR
	245	LEAR	4	S/F	0419.1	0422.3	18.0	41.0			QL=6 ST=2 TYP=3
	410	LEAR	47	GB	0419.1	0423.8	16.0	110.0			QL=6 ST=2 TYP=5
	100	GORK	41	F	0419.3	0419.4	8.5	65.0			
	2695	MANI	22	GRF	0419.3	0419.5	8.7	21.6	7.2		
	1415	MANI	22	GRF	0419.3	0419.6	10.2	17.3	5.8		
	100	GORK			0419.3	0422.9		60.0			
	100	GORK			0419.3	0424.4		35.0			
	100	GORK			0419.3	0425.5		30.0			
	606	MANI	3	S	0419.5	0421.0	2.5	54.4	18.1		
	2950	GORK	46	C	0419.8	0420.9	7.8	14.0			
	2950	GORK			0419.8	0423.5		13.0			
	17000	NOBE	29	PBI	0423.0	0423.0	33.0	13.0	0.0		
	9400	TYKW	29	PBI	0428.0		40.0	12.0	5.0		
	2000	TYKW	30	PBI	0430.0		65.0	2.0	1.0		
	3750	TYKW	29	PBI	0430.0		150.0	5.0	1.5		
	2000	TYKW	5	S	0440.3	0440.6	.7	6.0	1.5		
	430	KRAK	8	S	0720.5	0720.8	.4	18.0			
	430	KRAK	8	S	0720.8	0720.8	.2	12.0			
	430	KRAK	45	C	0847.8	0848.0U	3.3	590.0D	130.0		
	430	KRAK	8	S	0856.4	0856.5	.2	22.0			
	3100	CRIM	23	GRF	0913.0	0936.0	139.0	3.0	1.0		
	3100	CRIM	3	S	1008.0	1021.5	13.5	99.0	33.0		
	8800	SGMR	47	GB	1017.0E	1021.8	8.3D	310.0			QL=4 ST=2 TYP=5
	8400	BERN	4	S/F	1017.0	1021.8	13.0	384.0			
	4995	SGMR	47	GB	1017.0	1022.0	8.8	200.0			QL=4 ST=2 TYP=5
	4995	SGMR	47	GB	1017.0E	1022.0	8.8D	200.0			QL=4 ST=2 TYP=5
	9500	POTS	45	C	1018.0	1019.0	37.0	290.0			
	9100	GORK	4	S/F	1018.0	1021.7	9.0	310.0D			
	3000	POTS	45	C	1018.0	1021.7	12.0	94.0			
	11800	BERN	4	S/F	1018.0	1021.8	17.0	316.0			
	6100	KISV	4	S/F	1018.0	1021.9	7.0	150.0			
	1470	POTS	45	C	1018.0	1022.6	22.0	145.0			
	950	GORK	23	GRF	1018.0	1026.2	11.0	8.0			
	808	ONDR	2	S/F	1018.1	1022.5	10.7	92.0	25.0		
	19600	BERN	4	S/F	1018.5	1021.8	11.0D	203.0			
	1415	SGMR	47	GB	1019.0E	1021.8	5.0D	180.0			QL=4 ST=2 TYP=5
	930	BORD	45	C	1019.0	1021.8	9.0	124.0	10.0		
	35000	BERN	3	S	1019.0U	1022.1	10.0U	110.0			
	8800	ATHN	47	GB	1019.5	1021.8	10.6	400.0			QL=6 ST=2 TYP=5
	2950	GORK	4	S/F	1019.7	1021.7	8.1	83.0			
	950	GORK	46	C	1019.7	1021.9	6.4	113.0			
	950	GORK			1019.7	1022.6		94.0			
	810	KRAK	45	C	1019.7	1022.8	7.7	140.0	26.0		
	2695	SGMR	47	GB	1019.8E	1021.1	6.3D	119.0			QL=4 ST=2 TYP=5
	610	SGMR	4	S/F	1019.8E	1023.0	4.7D	45.0			QL=4 ST=2 TYP=3
	650	GORK	4	S/F	1019.8	1023.1	8.3	70.0			
	536	ONDR	2	S/F	1019.8	1023.5	8.4	27.0	14.0		
	2695	ATHN	47	GB	1020.0	1022.0	10.1	80.0			QL=6 ST=2 TYP=5
	3000	IZMI	7	C	1020.0	1022.0	5.0	78.0	57.0		
	1415	ATHN	47	GB	1020.0	1022.1	10.1	100.0			QL=6 ST=2 TYP=5
	4995	ATHN	47	GB	1020.0	1022.3	10.1	230.0			QL=6 ST=2 TYP=5
	430	KRAK	45	C	1020.0	1022.8	7.2	43.0	10.0		
	2650	DWIN	4	S/F	1020.0	1027.0	8.0	90.0	40.0		

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
19	6100	KISV	29	PBI	1025.0	1025.5	35.0	20.0			
	430	KRAK	8	S	1100.9	1101.0	.3	17.0			
	430	KRAK	8	S	1138.1	1138.1	.2	39.0			
	430	KRAK	8	S	1200.5	1200.5	.2	20.0			
	2800	OTTA	20	GRF	1305.0	1430.0	170.0	3.0	1.5		
	245	SGMR	8	S	1519.1	1519.3	.2	56.0			QL=6 ST=2 TYP=3
	930	BORD	46	C	1810.0	1816.7	12.0	840.0	67.0		
	9400	HUAN	45	C	1810.3	1811.4	4.2	259.9	128.8		L
	9400	HUAN			1810.3	1812.1		260.4			L
	2800	OTTA	46F	C	1810.5	1811.5	14.5	105.0	34.0		
	2695	PALE	47	GB	1810.8	1811.1	10.5	260.0			QL=6 ST=2 TYP=5
	2695	SGMR	47	GB	1810.8	1811.1	2.0	169.0			QL=6 ST=2 TYP=5
	15400	PALE	47	GB	1810.8	1811.5	6.2	219.0			QL=6 ST=2 TYP=5
	15400	SGMR	47	GB	1810.8	1811.5	2.0	189.0			QL=6 ST=2 TYP=5
	1415	PALE	47	GB	1810.8	1811.8	10.5	180.0			QL=6 ST=2 TYP=5
	4995	PALE	47	GB	1810.8	1812.1	11.3	130.0			QL=6 ST=2 TYP=5
	4995	SGMR	47	GB	1810.8	1812.1	2.3	110.0			QL=6 ST=2 TYP=5
	8800	PALE	47	GB	1810.8	1812.1	2.8	219.0			QL=6 ST=2 TYP=5
	8800	SGMR	47	GB	1810.8	1812.1	2.2	180.0			QL=6 ST=2 TYP=5
	1415	SGMR	47	GB	1811.1	1811.8	2.4	139.0			QL=6 ST=2 TYP=5
	610	PALE	49	GB	1811.8	1813.1	10.8	380.0			QL=6 ST=2 TYP=6
	410	PALE	49	GB	1813.0	1813.1	11.6	16.0			QL=6 ST=2 TYP=6
	9400	HUAN	30	PBI	1814.5	1814.5	55.1	30.0	7.0		L
	245	PALE	49	GB	1814.8	1816.6	8.0	200.0			QL=6 ST=2 TYP=6
	1415	SGMR	47	GB	1816.1	1819.1	4.5	110.0			QL=6 ST=2 TYP=5
	9400	HUAN	45	C	1818.5	1819.5	4.8	82.4	45.5		L
	9400	HUAN			1818.5	1820.3		84.3			L
	2695	SGMR	4	S/F	1818.8	1819.8	2.7	30.0			QL=6 ST=2 TYP=3
	4995	SGMR	8	S	1819.1	1820.1	1.7	44.0			QL=6 ST=2 TYP=3
	8800	SGMR	8	S	1819.3	1819.3	1.2	50.0			QL=6 ST=2 TYP=3
	2800	OTTA	29	PBI	1825.0	1825.0	145.0	5.8	2.9		
	245	LEAR	47	GB	2324.6	2324.8	.7	73.0			QL=6 ST=2 TYP=5
20	260	ONDR	44	NS	0600.0E	1330.0U	450.0D	152.0U			
	245	PALE	43	NS	1643.0	1837.1	705.0D	100.0			QL=6 ST=2 TYP=1
	208	VORO	44	NS	2215.0E		95.0D		1.0		
	9375	PEKG	1	S	0001.0	0001.8	2.0	22.0	3.4		
	9375	PEKG	45	C	0007.0	0008.6	6.0	23.3	5.4		
	9375	PEKG	1	S	0020.0	0020.8	1.5	19.3	4.5		
	3750	TYKW	20	GRF	0030.0	0050.0	90.0	2.0	1.0		
	9375	PEKG	3	S	0136.0	0146.6	12.0	76.0	6.9		
	245	LEAR	47	GB	0253.8	0254.3	1.3	59.0			QL=6 ST=2 TYP=5
	245	PALE	47	GB	0254.1	0254.3	.4	60.0			QL=6 ST=2 TYP=5
	245	LEAR	49	GB	0701.1	0701.3	.5	540.0			QL=6 ST=2 TYP=6
	234	POTS	4	S/F	0701.3	0701.6	.5	380.0	25.0		
	33	UPIC	42	SER	1106.6	1445.9	220.5				
	29	UPIC	42	SER	1106.8		219.4				
	245	LEAR	8	S	2359.1	2359.8	1.0	33.0			QL=6 ST=2 TYP=3
21	245	LEAR	43	NS	0046.1	0622.8	543.9D	46.0			QL=6 ST=2 TYP=1
	200	GORK	44	NS	0335.0E		395.0D		5.0		
	260	ONDR	44	NS	0602.0E	0938.0U	430.0D	3.0U			
	245	LEAR	43	NS	2256.0	0730.0	619.0D	210.0			QL=6 ST=2 TYP=1
	200	HIRA	43	NS	2314.0	0421.0	550.0D	10.0	3.0		WR
	8800	PALE	47	GB	0202.1	0202.3	.4	210.0			QL=6 ST=2 TYP=5
	9375	PEKG	45	C	0642.0	0644.2	6.0	65.9	12.6		
	9375	PEKG	2	S/F	0832.8	0833.4	1.2	14.2	2.6		
	930	BORD	8	S	1540.0	1540.0	.1	20.0	1.0		
	2800	OTTA	20	GRF	2050.0	2140.0	250.0	6.0	2.7		
	9400	TYKW	20	GRF	2110.0	2130.0	90.0	4.0	2.0		
	3750	TYKW	20	GRF	2110.0	2140.0	150.0	5.0	2.0		
	2000	TYKW	20	GRF	2110.0	2140.0	140.0	5.0	2.5		
22	200	GORK	44	NS	0321.0E		471.0D		5.0		
	260	ONDR	44	NS	0550.0E	1311.0U	540.0D				
	127	TORN	43	NS	0618.0	1112.4	556.0D	5000.0	17.0		V2
	204	IZMI	43	NS	1013.0		112.0D	32.0			
	245	SGMR	43	NS	1013.0	1445.0	778.0D	180.0			QL=6 ST=2 TYP=1
	410	SGMR	43	NS	1013.0	1459.0	778.0D	41.0			QL=6 ST=2 TYP=1
	100	HIRA	44	NS	2000.0E	2327.0	780.0D	240.0	60.0		SR

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
22	200	HIRA	44	NS	2000.0E	2340.0	780.0D	60.0	30.0		MR
	208	VORO	44	NS	2200.0E		240.0D		25.0		
	410	LEAR	43	NS	2256.0	0849.3	652.0D	20.0			QL=6 ST=2 TYP=1
	245	LEAR	43	NS	2256.0	0909.1	652.0D	230.0			QL=6 ST=2 TYP=1
	9375	PEKG	1	S	0218.5	0218.9	1.0	27.5	1.9		
	4995	LEAR	8	S	0236.0	0236.8	1.3	6.0			QL=6 ST=2 TYP=3
	3750	TYKW	5	S	0236.0	0237.7	2.0	7.0	3.0		
	2695	LEAR	8	S	0236.1	0236.8	1.2	4.0			QL=6 ST=2 TYP=3
	3750	TYKW	29	PBI	0238.0		10.0	2.0	1.0		
	9375	PEKG	40	F	0305.0	0308.0	4.0	15.0	.6		
	2000	TYKW	20	GRF	0435.0	0530.0	120.0	2.0	1.0		
	3750	TYKW	20	GRF	0440.0	0530.0	100.0	2.0	1.0		
	9375	PEKG	2	S/F	0521.0	0523.0	5.0	13.2	4.3		
	9375	PEKG	45	C	0650.0	0651.0	2.0	48.0	6.1		
	9375	PEKG	45	C	0717.0	0733.5	20.0	29.7	6.5		
	234	POTS	4	S/F	0725.3	0725.4	.2	380.0	90.0		
	234	POTS	4	S/F	0741.5	0742.6	1.5	340.0	12.0		
	113	POTS	4	S/F	0856.2	0856.5	1.1	200.0	40.0		
	234	POTS	42	SER	1004.3	1007.6	4.0	380.0	1.0		
	234	POTS	4	S/F	1037.2	1037.3	.5	240.0	25.0		
	234	POTS	4	S/F	1102.4	1102.4	.2	340.0	50.0		
	430	KRAK	41	F	1132.5	1151.9	34.0	39.0			
	430	KRAK	45	C	1240.0	1248.0	15.0	53.0	16.0		
	2800	OTTA			1240.0	1254.3	22.0	170.0			
	930	BORD	45	C	1240.0	1310.0	57.0	382.0	64.0		
	1470	POTS	45	C	1240.0	1312.2	130.0D	180.0			
	2800	OTTA	46F	C	1240.0	1312.5	50.0	225.0	89.0		
	810	KRAK	48	C	1240.2	1255.9	50.0	420.0	95.0		
	810	KRAK			1240.2	1310.2		550.0			
	808	ONDR	47	GB	1241.1	1311.0	41.0	338.0	201.0		
	3000	POTS	45	C	1242.5	1312.8	128.0D	500.0			
	1415	ATHN	4	S/F	1245.0	1255.8	49.3	51.0			QL=6 ST=2 TYP=3
	2650	DWIN	47	GB	1245.0	1313.0	50.0	190.0	100.0		
	8400	BERN	21	GRF	1246.0	1311.9	170.0D	180.0			
	19600	BERN	21	GRF	1246.0	1312.1	170.0	60.0			
	11800	BERN	21	GRF	1246.0	1312.4	170.0D	125.0			
	9500	POTS	45	C	1246.0	1312.4	124.0D	105.0			
	9400	HUAN	41	F	1246.2	1254.4	36.2	95.6	66.3		R-L-R
	9400	HUAN			1246.2	1312.0		130.4			
	2695	ATHN	4	S/F	1246.3	1254.6	44.2	180.0			QL=6 ST=2 TYP=3
	4995	ATHN	4	S/F	1246.8	1254.6	42.2	150.0			QL=6 ST=2 TYP=3
	33	UPIC	8	S	1248.5	1248.6	.9				
	29	UPIC	2	S/F	1248.5	1248.6	.5				
	8800	ATHN	4	S/F	1248.6	1254.8	37.4	91.0			QL=6 ST=2 TYP=3
	6100	KISV	4	S/F	1249.0	1255.0		85.0			
	15000	KISV			1250.0	1254.0		54.0			
	8800	SGMR	47	GB	1250.3	1252.3	11.3	74.0			QL=6 ST=2 TYP=5
	15400	SGMR	47	GB	1250.6	1252.5	11.0	43.0			QL=6 ST=2 TYP=5
	536	ONDR	47	GB	1257.0	1318.0	25.0	143.0	70.0		
	2800	OTTA			1302.0	1312.5	28.0	205.0			
	430	KRAK	45	C	1306.0	1315.2	17.3	330.0	90.0		
	2695	SGMR	47	GB	1318.0	1318.1	21.6	90.0			QL=6 ST=3 TYP=5
	4995	SGMR	47	GB	1318.0	1318.1	21.6	90.0			QL=6 ST=3 TYP=5
	610	SGMR	4	S/F	1318.0	1318.3	21.6	46.0			QL=6 ST=3 TYP=3
	8800	SGMR	47	GB	1318.0	1318.5	21.6	60.0			QL=6 ST=3 TYP=5
	1415	SGMR	47	GB	1318.0	1318.8	21.6	79.0			QL=6 ST=3 TYP=5
	410	SGMR	47	GB	1318.0	1318.8	21.6	119.0			QL=6 ST=3 TYP=5
	9400	HUAN	29	PBI	1322.4	1322.4	211.2	45.2	20.9		R
	245	SGMR	47	GB	1324.8	1325.3	14.8	79.0			QL=6 ST=3 TYP=5
	2800	OTTA	30	PBI	1330.0	1330.0	390.0	32.0	10.0		
	2800	OTTA	2	S/F	1401.0	1402.1	2.0	6.8			
	930	BORD	46	C	1401.0	1402.8	4.0	53.0	4.0		
	410	SGMR	47	GB	1442.3	1444.0	15.8	92.0			QL=6 ST=2 TYP=5
	245	SGMR	4	S/F	1442.8	1444.3	15.3	189.0			QL=6 ST=2 TYP=3
	610	SGMR	4	S/F	1443.0	1443.8	15.1	32.0			QL=6 ST=2 TYP=3
	15400	SGMR	4	S/F	1450.3	1450.6	7.8	39.0			QL=6 ST=2 TYP=3
	610	SGMR	4	S/F	1459.1	1459.3	18.0	22.0			QL=6 ST=2 TYP=3
	410	SGMR	47	GB	1459.1	1500.1	18.0	50.0			QL=6 ST=2 TYP=5
	245	SGMR	47	GB	1505.1	1506.1	12.0	40.0			QL=6 ST=2 TYP=5
	2800	OTTA	240	R	2105.0	2150.0	45.0	6.6	3.3		

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
22	2000	TYKW	5	S	2114.0	2114.3	1.5	8.0	2.0		
	3750	TYKW	20	GRF	2145.0	2203.0	35.0	4.0	1.5		
	1000	TYKW	45	C	2218.0	2218.8	2.0	7.0	1.5		
	2695	PENT	20	GRF	2220.0	0010.0	180.0D	10.6			
	3750	TYKW	20	GRF	2240.0	2258.0	35.0	3.0	1.5		
	9400	TYKW	21	GRF	2320.0	0010.0	120.0	4.0	2.0		
	1000	TYKW	20	GRF	2320.0	2341.0	120.0	3.0	1.0		
	2000	TYKW	20	GRF	2320.0	2400.0	120.0	4.0	2.0		
	3750	TYKW	21	GRF	2321.0	0009.0	125.0	8.0	3.0		
	3750	TYKW	5	S	2352.5	2352.8	1.5	6.0	1.5		
23	200	GORK	44	NS	0303.0E		479.0D		10.0		
	100	GORK	44	NS	0303.0E		273.0D		5.0		
	204	IZMI	44	NS	0600.0E		360.0D	35.0			
	127	TORN	43	NS	0602.0	0917.4	470.0D	390.0	18.0		V1,DISTURBED
	260	ONDR	44	NS	0643.0E	0934.0U	454.0D	27.0U			
	245	SGMR	43	NS	1012.0	1450.0	780.0D	100.0			QL=6 ST=2 TYP=1
	200	HIRA	44	NS	1953.0E	0316.0	800.0D	30.0	10.0		MR
	208	VORO	44	NS	2200.0E		240.0D		10.0		
	245	LEAR	43	NS	2333.6	0158.3	613.4D	83.0			QL=6 ST=2 TYP=1
	410	LEAR	43	NS	2336.6	0035.3	383.4	13.0			QL=6 ST=2 TYP=1
	3750	TYKW	5	S	0036.0	0037.0	6.0	6.0	1.0		
	9400	TYKW	5	S	0036.7	0037.0	1.0	51.0	14.0		
	8800	LEAR	47	GB	0036.8	0036.8	.3	63.0			QL=6 ST=2 TYP=5
	4995	LEAR	8	S	0036.8	0037.0	.2	18.0			QL=6 ST=2 TYP=3
	3750	TYKW	5	S	0130.0	0132.4	4.0	6.0	3.0		
	3750	TYKW	30	PBI	0134.0		35.0	3.0	1.0		
	9375	PEKG	5	S	0136.0	0137.0	2.0	56.0	2.1		
	3750	TYKW	45	C	0141.0	0143.8	25.0	5.0	2.0		
	9400	TYKW	5	S	0141.0	0144.0	25.0	5.0	2.0		
	2000	TYKW	5	S	0141.0	0145.0	20.0	1.5	.7		
	3750	TYKW	21	GRF	0319.0	0453.0	260.0	10.0	5.0		
	9400	TYKW	20	GRF	0319.0	0500.0	220.0	8.0	4.0		
	1000	TYKW	20	GRF	0320.0	0510.0	250.0	3.0	1.5		
	2000	TYKW	20	GRF	0320.0	0510.0	250.0	8.0	4.0		
	3750	TYKW	21	GRF	0505.0	0530.0	70.0	2.0	1.0		
	3750	TYKW	20	GRF	0540.0	0549.0	35.0	3.0	1.5		
	810	KRAK	8	S	0751.4	0751.4	.2	21.0			
	6100	KISV	1	S	0843.1	0843.6	1.0	4.0			
	3100	CRIM	1	S	1105.0	1105.5	2.0	14.0	4.0		
	2800	OTTA	20	GRF	1150.0	1155.0	30.0	5.0	2.4		
	430	KRAK	8	S	1151.6	1151.6	.2	8.0			
	810	KRAK	8	S	1151.6	1151.6	.2	16.0			
	810	KRAK	8	S	1203.7	1203.7	.2	24.0			
	430	KRAK	8	S	1203.8	1203.8	.2	46.0			
	2800	OTTA	27A	RF	1715.0		240.0	3.4	3.1		
	2800	OTTA	24	R	1715.0	1740.0	25.0	3.4	1.7		
	2800	OTTA	24P	R	1741.0		200.0	3.4			
	2800	OTTA	21	GRF	1820.0	1835.0	50.0	3.4	1.8		
	2800	OTTA	1	S	1842.5	1843.0	1.5	2.6	1.3		
	2800	OTTA	26	FAL	2100.0	2115.0	15.0	-3.4	-1.7		
	2000	TYKW	20	GRF	2250.0	2320.0	110.0	2.0	1.0		
	3750	TYKW	21	GRF	2250.0	2320.0	120.0	3.0	1.5		
	2695	PENT	20	GRF	2255.0	0000.0	115.0	5.0			
	3750	TYKW	20	GRF	2354.0	2400.0U	40.0	3.0D	1.5D		
	9400	TYKW	20	GRF	2355.0	0010.0	60.0	4.0	2.0		
24	100	GORK	44	NS	0303.0E		273.0D		5.0		
	200	GORK	44	NS	0303.0E		414.0D		15.0		
	260	ONDR	43	NS	0654.0	0856.0U	153.0D	9.0U			
	127	TORN	44	NS	0730.0E	1030.1	360.0D	170.0	2.0		V1
	208	VORO	44	NS	2200.0E		240.0D		2.0		
	245	LEAR	43	NS	2257.0	0645.3	650.0D	68.0			QL=6 ST=2 TYP=1
	1000	TYKW	47	GB	0016.3	0017.8	3.0	1050.0	150.0		
	610	LEAR	8	S	0042.6	0042.8	.4	13.0			QL=6 ST=2 TYP=3
	9400	TYKW	45	C	0126.3	0126.7	1.5	12.0	3.0		
	2000	TYKW	20	GRF	0210.0	0226.0	75.0	3.0	1.5		
	9375	PEKG	45	C	0212.0	0216.7	14.0	19.1	2.7		
	2840	PEKG	20	GRF	0216.0	0221.5	21.0	4.3	1.6		
	3750	TYKW	45	C	0217.0	0220.2	13.0	6.0	2.0		

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Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
24	3750	TYKW	29	PBI	0230.0		40.0	2.0	1.0		
	3750	TYKW	20	GRF	0340.0	0420.0	65.0	4.0	1.5		
	2000	TYKW	20	GRF	0410.0	0420.0	30.0	1.5	.7		
	2000	TYKW	21	GRF	0510.0	0630.0	140.0	3.0	1.5		
	9400	TYKW	20	GRF	0620.0	0630.0	60.0	4.0	2.0		
	3750	TYKW	5	S	0622.0	0624.3	8.0	8.0	3.0		
	2950	GORK	20	GRF	0623.6	0636.0	18.0	5.0	2.5		
	2695	LEAR	8	S	0629.5	0629.6	.1	30.0			QL=6 ST=2 TYP=3
	3750	TYKW	30	PBI	0630.0		20.0	3.0	1.0		
	950	GORK	1	S	0635.5	0635.8	.8	9.0			
	1000	TYKW	5	S	0635.6	0635.8	.7	9.0	2.0		
	650	GORK	1	S	0635.7	0635.8	.4	2.0			
	3750	TYKW	5	S	0635.7	0635.9	1.0	3.0	1.0		
	2000	TYKW	45	C	0635.7	0636.2	1.5	4.0	1.5		
	610	LEAR	8	S	0636.0	0636.1	1.8	20.0			QL=6 ST=2 TYP=3
	2800	OTTA	1	S	1129.2	1130.0	1.5	6.4	3.0		
	810	KRAK	8	S	1129.6	1129.9	.6	49.0			
	930	BORD	46	C	1129.8	1130.2	1.3	26.0	2.0		
	808	ONDR	8	S	1130.6	1130.7	.1	34.0			
	6100	KISV	1	S	1250.5	1252.0	4.0	7.0			
	4995	SGMR	8	S	1251.8	1252.0	.2	17.0			QL=6 ST=2 TYP=3
	2800	OTTA	20	GRF	1346.0	1349.0	14.0D	2.8			
	930	BORD	46	C	1455.0	1455.8	1.0	18.0	2.0		
	2800	OTTA	21	GRF	1620.0	1631.0	30.0	3.2	1.2		
	2800	OTTA	1	S	1625.0	1626.2	3.0	4.2	1.8		
	2800	OTTA	22	GRF	1710.0	1845.0	245.0	8.2	3.0		
	9400	TYKW	20	GRF	2250.0	2310.0	50.0	3.0	1.5		
	3750	TYKW	21	GRF	2258.0	2300.0	40.0	2.0	1.0		
	3750	TYKW	45	C	2305.0	2306.1	6.0	4.5	1.5		
	2000	TYKW	5	S	2305.0	2306.4	6.0	3.0	1.0		
	2695	PENT	1	S	2305.8	2306.5	5.0	4.0	2.0		
25	33	UPIC	43	NS	0629.4		660.6D				
	29	UPIC	43	NS	0629.4		660.6D				
	260	ONDR	43	NS	0650.0		152.0D				
	245	SGMR	43	NS	1901.3	1958.6	81.7	31.0			QL=6 ST=2 TYP=1
	3750	TYKW	21	GRF	0020.0	0023.0	40.0	2.0	1.0		
	2000	TYKW	20	GRF	0025.0	0045.0	35.0	2.0	1.0		
	3750	TYKW	5	S	0041.0	0045.0	15.0	2.0	1.0		
	3750	TYKW	21	GRF	0105.0	0118.0	55.0	5.0	2.0		
	9375	PEKG	1	S	0108.0	0108.7	1.3	16.0	1.5		
	2000	TYKW	21	GRF	0110.0	0140.0	90.0	2.0	1.0		
	3750	TYKW	45	C	0124.0	0125.4	3.0	8.0	4.0		
	2000	TYKW	45	C	0125.0	0126.5	4.0	4.0	1.5		
	9400	TYKW	20	GRF	0125.0	0129.0	35.0U	5.0	2.0U		INTERFERENCE
	3750	TYKW	29	PBI	0127.0		10.0	4.0	2.0		
	3750	TYKW	5	S	0147.0	0149.5	6.0	1.5	.5		
	3750	TYKW	5	S	0216.0	0218.5	6.0	1.5	.5		
	3750	TYKW	5	S	0228.0	0228.5	4.0	2.0	.5		
	245	LEAR	8	S	0231.0	0231.0	.3	31.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0231.0	0231.0	.1	5.0			QL=6 ST=2 TYP=3
	2000	TYKW	20	GRF	0323.0	0333.0	40.0	2.5	1.0		
	3750	TYKW	20	GRF	0324.0	0332.0	70.0	6.0	3.0		
	1000	TYKW	45	C	0327.0	0334.0	13.0	2.5	1.0		
	2695	PALE	49	GB	0333.1	0335.3	3.7	1199.0			QL=6 ST=2 TYP=6
	2695	LEAR	8	S	0336.5	0336.8	.3	17.0			QL=4 ST=2 TYP=3
	2000	TYKW	20	GRF	0440.0	0510.0	60.0	1.0	.5		
	3750	TYKW	5	S	0453.0	0455.0	7.0	1.5	.7		
	2000	TYKW	20	GRF	0555.0	0600.0	50.0	2.0	1.0		
	3750	TYKW	21	GRF	0555.0	0600.0U	40.0	3.0D	1.5D		
	610	LEAR	8	S	0620.6	0620.8	.5	5.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0620.8	0621.0	.3	19.0			QL=6 ST=2 TYP=3
	3750	TYKW	5	S	0622.5	0623.2	3.0	3.0	1.0		
	410	LEAR	8	S	0625.8	0626.0	.3	18.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0654.8	0655.0	.3	15.0			QL=6 ST=2 TYP=3
	430	KRAK	8	S	0720.4	0720.4	.2	22.0			
	430	KRAK	8	S	0817.1	0817.1	.2	20.0			
	430	KRAK	8	S	0907.3	0907.3	.2	12.0			
	430	KRAK	8	S	0955.4	0955.4	.2	29.0			
	930	BORD	8	S	1151.4	1151.5	.3	51.0	3.0		

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

APRIL 1982

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
25	2800	OTTA	20	GRF	1200.0	1207.0	30.0	6.0	2.8		
	2800	OTTA	21	GRF	1625.0	1650.0	80.0	3.0	1.8		
	2800	OTTA	1	S	1639.0	1640.5	4.0	3.6	1.8		
	2800	OTTA	1	S	1720.0	1720.5	1.0	2.2			
	2800	OTTA	20	GRF	2025.0	2033.0	45.0	6.8	2.3		
	2800	OTTA	240	AR	2140.0	2150.0	10.0	3.2			
	2000	TYKW	21	GRF	2140.0	2230.0	105.0	4.0	2.0		
	3750	TYKW	21	GRF	2140.0	2230.0	105.0	3.0	1.5		
	2800	OTTA	1	S	2142.0	2143.5	3.0	5.4	2.6		
	3750	TYKW	45	C	2142.0	2143.6	5.0	3.0	1.0		
	2000	TYKW	5	S	2142.0	2143.9	6.0	6.0	2.5		
	2800	OTTA	20	GRF	2225.0	2230.5	30.0	3.2	1.6		
	9400	TYKW	5	S	2256.0	2257.7	3.5	10.0	2.5		
	2695	PENT	20	GRF	2335.0		85.0	3.4	2.0		
	3750	TYKW	20	GRF	2335.0	0010.0	165.0	3.0	1.5		
	2000	TYKW	20	GRF	2340.0	2345.0	50.0	2.0	1.0		
26	15400	LEAR	4	S/F	0000.1	0020.5	27.9	19.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	0022.0	0022.1	.1	50.0			QL=6 ST=3 TYP=5
	245	LEAR	47	GB	0047.0	0047.1	.1	63.0			QL=6 ST=2 TYP=5
	4995	LEAR	4	S/F	0100.8	0108.3	8.2	26.0			QL=6 ST=2 TYP=3
	2000	TYKW	21	GRF	0101.0	0110.0	40.0	2.0	1.0		
	2695	LEAR	4	S/F	0102.1	0108.0	5.9	11.0			QL=6 ST=2 TYP=3
	3750	TYKW	5	S	0105.0	0108.0	5.0	17.0	7.0		
	2000	TYKW	5	S	0107.0	0108.0	2.5	2.0	.7		
	4995	PALE	8	S	0107.6	0108.3	.7	20.0			QL=6 ST=2 TYP=3
	2695	PENT	1	S	0107.8	0108.0	1.0	3.4	2.2		
	3750	TYKW	29	PBI	0110.0		30.0	8.0	2.5		
	4995	LEAR	8	S	0845.0	0845.6	2.0	10.0			QL=6 ST=2 TYP=3
	2695	LEAR	8	S	0845.0	0845.6	2.0	10.0			QL=6 ST=2 TYP=3
	8800	LEAR	8	S	0845.1	0845.6	1.9	13.0			QL=6 ST=2 TYP=3
	15400	LEAR	8	S	0845.1	0845.6	1.9	17.0			QL=6 ST=2 TYP=3
	1415	LEAR	8	S	0845.1	0845.6	2.0	10.0			QL=6 ST=2 TYP=3
	430	KRAK	8	S	0846.3	0846.3	.2	15.0			
	245	LEAR	8	S	0848.1	0848.1	.2	10.0			QL=6 ST=2 TYP=3
	2800	OTTA	20	GRF	1335.0	1343.0	70.0	4.2	1.4		
	2800	OTTA	20	GRF	1833.0	1836.0	13.0	4.4	2.0		
	4995	PALE	8	S	1835.6	1835.8	1.2	24.0			QL=6 ST=2 TYP=3
	3750	TYKW	5	S	2225.0	2226.0	4.0	5.0	1.5		
	3750	TYKW	20	GRF	2303.0	2310.0	30.0	2.0	1.0		
	245	LEAR	8	S	2316.3	2316.3	.2	20.0			QL=6 ST=2 TYP=3
	4995	LEAR	8	S	2346.8	2347.1	1.3	8.0			QL=6 ST=2 TYP=3
	15400	LEAR	8	S	2346.8	2347.1	1.2	17.0			QL=6 ST=2 TYP=3
	8800	LEAR	8	S	2346.8	2347.1	1.3	11.0			QL=6 ST=2 TYP=3
	2695	PENT	20	GRF	2355.0	0003.0	60.0	8.4	4.2		
	2000	TYKW	20	GRF	2357.0	0002.0	75.0	6.0	2.0		
	3750	TYKW	20	GRF	2357.0	0003.0U	75.0	8.0D	3.0D		
	9400	TYKW	20	GRF	2357.0	0010.0	80.0	6.0	3.0		
	2695	LEAR	4	S/F	2358.1	0002.1	17.9	13.0			QL=6 ST=2 TYP=3
	4995	LEAR	4	S/F	2358.3	0001.5	17.7	10.0			QL=6 ST=2 TYP=3
	8800	LEAR	4	S/F	2358.5	0005.3	17.5	11.0			QL=6 ST=2 TYP=3
27	245	LEAR	43	NS	0729.3	0738.6	135.7D	29.0			QL=6 ST=2 TYP=1
	29	UPIC	43	NS	0848.5	1219.7	426.6D				
	29	UPIC	43	NS	0848.5	1219.7	426.6				
	33	UPIC	43	NS	0854.8	1219.4	420.5D				
	33	UPIC	43	NS	0854.8	1219.4	420.5				
	245	LEAR	8	S	0102.8	0102.8	.2	15.0			QL=6 ST=2 TYP=3
	9395	PEKG	40	F	0415.0	0416.6	9.0	14.6	1.7		
	9395	PEKG	45	C	0427.0	0430.2	18.0	44.3	4.2		
	245	LEAR	8	S	0623.8	0623.8	.2	17.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0628.3	0628.3	.2	16.0			QL=6 ST=2 TYP=3
	610	LEAR	8	S	0651.8	0652.0	.3	18.0			QL=6 ST=2 TYP=3
	610	LEAR	8	S	0655.5	0655.6	.1	17.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0655.5	0655.6	.1	18.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	0739.6	0739.8	.2	85.0			QL=6 ST=2 TYP=5
	410	LEAR	8	S	0739.6	0739.8	.2	8.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0741.8	0742.0	.3	10.0			QL=6 ST=2 TYP=3
	245	LEAR	47	GB	0741.8	0742.0	.3	68.0			QL=6 ST=2 TYP=5
	6100	KISV	21	GRF	0750.3	0750.7	6.0	4.0			

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

APRIL 1982

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
27	3100	CRIM	26	FAL	1018.0	1100.0		3.0			
	430	KRAK	8	S	1049.7	1049.7	.2	9.0			
	430	KRAK	8	S	1125.7	1125.7	.2	45.0			
	33	UPIC	46	C	1217.6	1219.4	3.8				
	33	UPIC	46	C	1217.6	1219.4	3.8				
	29	UPIC	46	C	1217.6	1219.7	3.3				
	245	LEAR	8	S	2332.8	2332.8	.2	41.0			QL=6 ST=2 TYP=3
28	33	UPIC	43	NS	0607.1	0811.2	682.9D				
	29	UPIC	43	NS	0708.0	0811.5	500.3D				
	29	UPIC	44	NS	0708.0E	0811.5	500.3D				
	245	LEAR	8	S	0023.3	0023.5	.3	13.0			QL=6 ST=2 TYP=3
	3750	TYKW	21	GRF	0100.0	0120.0	140.0	2.0	1.0		
	3750	TYKW	5	S	0138.0	0141.2	13.0	1.5	.5		
	2000	TYKW	5	S	0217.0	0218.4	5.0	1.5	.5		
	3750	TYKW	20	GRF	0240.0	0250.0	30.0	1.5	.7		
	245	LEAR	8	S	0245.3	0246.0	1.3	17.0			QL=6 ST=3 TYP=3
	3750	TYKW	20	GRF	0330.0	0400.0	100.0	2.0	1.0		
	245	LEAR	8	S	0423.0	0423.6	.8	18.0			QL=6 ST=2 TYP=3
	3750	TYKW	5	S	0517.0	0518.3	10.0	3.0	1.0		
	3750	TYKW	20	GRF	0532.0	0536.0	45.0	2.0	1.0		
	245	LEAR	8	S	0603.6	0603.6	.4	19.0			QL=6 ST=2 TYP=3
	260	ONDR	41	F	0741.0		16.0	5.0			
	245	LEAR	8	S	0747.3	0747.3	.2	17.0			QL=6 ST=2 TYP=3
	9500	POTS	3	S	0750.8	0750.9	4.7	57.0			
	245	LEAR	8	S	0752.0	0752.1	.1	11.0			QL=6 ST=2 TYP=3
	536	ONDR	4	S/F	0754.3	0754.4	1.3	11.0			
	1415	LEAR	8	S	0754.3	0755.1	1.5	17.0			QL=6 ST=2 TYP=3
	610	LEAR	8	S	0808.3	0808.3	.2	26.0			QL=6 ST=2 TYP=3
	410	LEAR	8	S	0808.3	0808.6	.3	7.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0808.5	0808.6	.3	13.0			QL=6 ST=2 TYP=3
	536	ONDR	8	S	0809.5	0809.6	.1	11.0			
	245	LEAR	8	S	0814.3	0814.3	.2	24.0			QL=6 ST=2 TYP=3
	260	ONDR	4	S/F	0824.2	0825.7	3.8	8.0	3.0		
	930	BORD	46	C	0851.3	0851.5	.3	32.0	2.0		
	430	KRAK	8	S	0920.2	0920.5	.6	74.0			
	260	ONDR	41	F	0950.4	0958.0	18.4	14.0			
	930	BORD	8	S	0952.1	0952.2	.2	41.0	2.0		
	536	ONDR	8	S	1322.4	1322.4	.1	3.0			
	2800	OTTA	21	GRF	1600.0	1720.0	175.0	5.2	2.6		
	9400	HUAN	22	GRF	1622.1	1630.7U	90.0	11.5	3.8		0
	930	BORD	8	S	1811.7	1811.9	.6	19.0	3.0		
	2800	OTTA	1	S	1821.5	1822.1	2.0	2.6	1.3		
	3750	TYKW	45	C	2104.0	2106.9	5.0	15.0	6.0		
	2800	OTTA	3	S	2105.0	2106.9	7.0	11.4	3.6		
	4995	PALE	8	S	2106.1	2106.6	1.2	16.0			QL=6 ST=2 TYP=3
	2695	PALE	8	S	2106.5	2106.8	1.1	16.0			QL=6 ST=2 TYP=3
	3750	TYKW	29	PBI	2109.0		25.0	5.0	1.5		
	3750	TYKW	20	GRF	2300.0	2325.0	60.0	2.0	1.0		
	245	LEAR	8	S	2341.5	2341.6	.1	18.0			QL=6 ST=2 TYP=3
29	260	ONDR	43	NS	1034.0		216.0D				
	610	LEAR	8	S	0129.1	0129.6	.7	20.0			QL=6 ST=2 TYP=3
	3750	TYKW	21	GRF	0150.0	0225.0	80.0	2.0	1.0		
	3750	TYKW	5	S	0237.0	0237.6	3.0	4.0	1.5		
	3750	TYKW	20	GRF	0420.0	0426.0	30.0	2.0	1.0		
	2000	TYKW	20	GRF	0420.0	0426.0	30.0	3.0	1.0		
	6100	KISV	1	S	0525.2	0525.4	.5	3.0			
	260	ONDR	8	S	0651.9	0651.9	.1	5.0			
	260	ONDR	8	S	0731.9	0731.9	.1	10.0			
	9400	TYKW	5	S	0736.0	0736.6	2.5	10.0	3.0		
	536	ONDR	4	S/F	0754.3	0754.4	1.3	11.0			
	245	LEAR	8	S	0800.1	0800.1	.2	13.0			QL=6 ST=2 TYP=3
	536	ONDR	8	S	0809.5	0809.6	.1	11.0			
	260	ONDR	8	S	0821.4	0821.6	.2	2.0			
	245	LEAR	8	S	0857.5	0857.6	.1	37.0			QL=6 ST=2 TYP=3
	260	ONDR	7	C	1016.0	1017.0	1.8	51.0			
	204	IZMI	8	S	1017.0	1017.1	.2	132.0	100.0		
	2800	OTTA	21	GRF	1105.0	1145.0	280.0	12.8	6.0		
	3000	POTS	29	PBI	1111.5	1116.5	104.0	18.0			

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

APRIL 1982

Day	Freq	Sta	Type		Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
29	6100	KISV	24	R	1112.0	1134.0		9.0			
	808	ONDR	40	F	1114.7	1115.9	4.8	11.0			
	2650	DWIN	1	S	1115.0	1117.0	2.0	12.0	5.0		
	9500	POTS	20	GRF	1115.0	1125.0	148.0	16.0			
	2800	OTTA	3	S	1115.5	1116.5	3.0	10.0	4.8		
	930	BORD	46	C	1116.0	1116.4	1.2	43.0	3.0		
	1470	POTS	4	S/F	1116.0	1116.5	4.0	17.0			
	2800	OTTA	2	S/F	1219.0	1219.5	2.0	5.0	2.4		
	536	ONDR	8	S	1322.4	1322.4	.1	3.0			
	9400	HUAN	20	GRF	1347.1	1400.8	23.5	6.1	3.5		0
	29	UPIC	2	S/F	1359.1	1359.3	.5				
	33	UPIC	2	S/F	1359.2	1359.3	.7				
	2800	OTTA	2	S/F	1914.0	1918.5	6.0	2.4			
	2695	PENT	20	GRF	2305.0	2350.0	155.0	3.6	2.0		
	8800	LEAR	4	S/F	2323.8	2325.6	4.0	13.0			QL=6 ST=2 TYP=3
	15400	LEAR	4	S/F	2324.6	2325.6	2.2	20.0			QL=6 ST=2 TYP=3
	9395	PEKG	1	S	2352.0	2352.7	1.5	9.0	3.1		
30	260	ONDR	43	NS	0824.0		329.0D				
	245	LEAR	8	S	0033.6	0033.6	.2	36.0			QL=6 ST=2 TYP=3
	245	LEAR	8	S	0131.6	0131.8	.2	11.0			QL=6 ST=2 TYP=3
	3750	TYKW	5	S	0333.0	0333.4	1.0	4.0	1.5		RAIN
	2000	TYKW	5	S	0333.0	0333.5	1.0	3.0	1.0		
	3750	TYKW	20	GRF	0510.0	0520.0	110.0	2.0	1.0		RAIN
	2000	TYKW	20	GRF	0510.0	0520.0	110.0	1.5	.7		
	245	LEAR	8	S	0600.6	0600.8	.2	15.0			QL=6 ST=2 TYP=3
	3100	CRIM	26	FAL	0653.0	0733.0		3.0			
	204	IZMI	8	S	0750.8	0750.8	.1	1600.0			
	4995	LEAR	4	S/F	0755.1	0756.0	3.9	7.0			QL=6 ST=2 TYP=3
	2695	LEAR	4	S/F	0755.1	0756.1	3.9	8.0			QL=6 ST=2 TYP=3
	3100	CRIM	1	S	0755.5	0756.2	3.0	6.0	2.0		
	3750	TYKW	5	S	0755.5	0756.2	2.5	5.0	1.5U		RAIN
	3000	POTS	3	S	0755.5	0756.4	2.0	6.0			
	6100	KISV	8	S	0845.9	0846.0	.2	9.0			
	29	UPIC	42	SER	0900.8	0907.5	6.9				
	33	UPIC	42	SER	0901.0	0907.5	6.9				
	245	LEAR	8	S	0915.1	0915.1	.2	18.0			QL=6 ST=2 TYP=3
	2800	OTTA	20	GRF	1245.0	1455.0	310.0	6.8	3.6		

Reports are received routinely from the following observatories:

ATHN = Athens
BERN = Berne
BORD = Bordeaux
CRIM = Crimea
DWIN = Dwingeloo
GORK = Gorky
HARS = Harestua
HIRA = Hiraiso
HUAN = Huancayo
IRKU = Irkutsk
IZMI = IZMIRAN
KISV = Kislovodsk
KRAK = Krakow
LEAR = Learmonth
MANI = Manila
NAGO = Nagoya
NOBE = Nobeyama
ONDR = Ondrejov
OTTA = Ottawa
PALE = Palehua
PEKG = Peking
POTS = Potsdam
SAOP = Sao Paulo
SGMR = Sagmore Hill
SYDN = Sydney
TORN = Torun
TYKW = Toyokawa
YUNN = Yunnan
TRST = Triste
UPIC = Upice
VORO = Voroshilov

Explanation of Type Code:

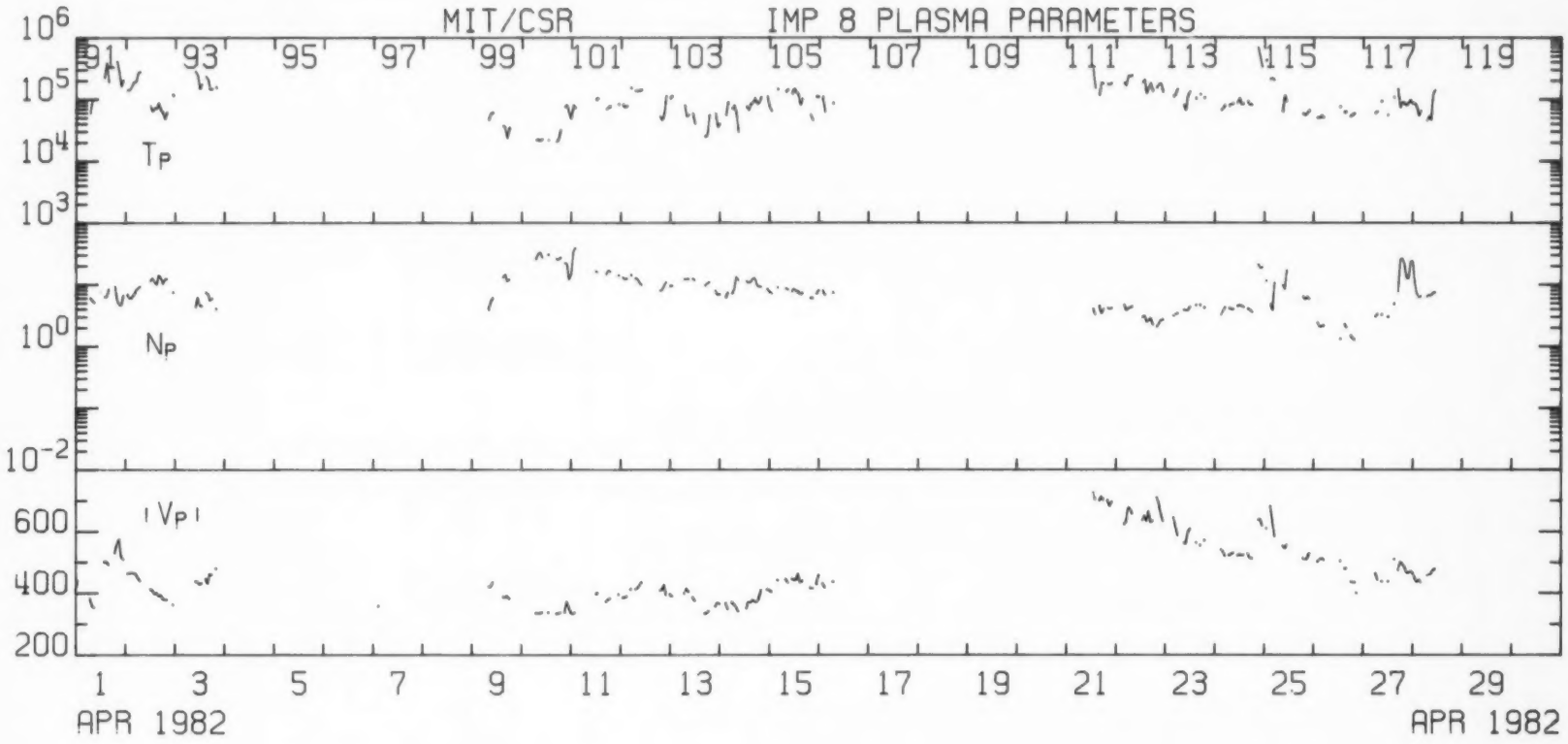
1 Simple 1
2 Simple 1F
3 Simple 2
4 Simple 2F
5 Simple
6 Minor
7 Minor +
8 Spike
20 Simple 3
21 Simple 3A
22 Simple 3F
23 Simple 3AF
24 Rise
25 Rise A
26 Fall
27 Rise and Fall
28 Precursor
29 Post Burst Increase
30 Post Burst Increase A
31 Post Burst Decrease
33 Absorption
40 Fluctuation
41 Group of Bursts
42 Series of Bursts
43 Onset of Noise Storm
44 Noise Storm in Progress
45 Complex
46 Complex F
47 Great Burst
48 Major
49 Major +

1A Simple 1A
3A Simple 2A
21A Simple 3A GRF
2A Simple 1AF
4A Simple 2AF
240 Rise only
240F Rise only F
24P Post Rise
24PF Post Rise F
16A Fall A
260 Fall Only
26F Fall F
27F Rise and Fall F
27AF Rise and Fall AF
31A Post Burst Decrease A
32A Absorption A
46F Complex F

Under the "Remarks" column heading, RIF stands for Relative Increase in Flux. The expression "RIF 469.2", for example, denotes a flux increase of 469.2% above background.

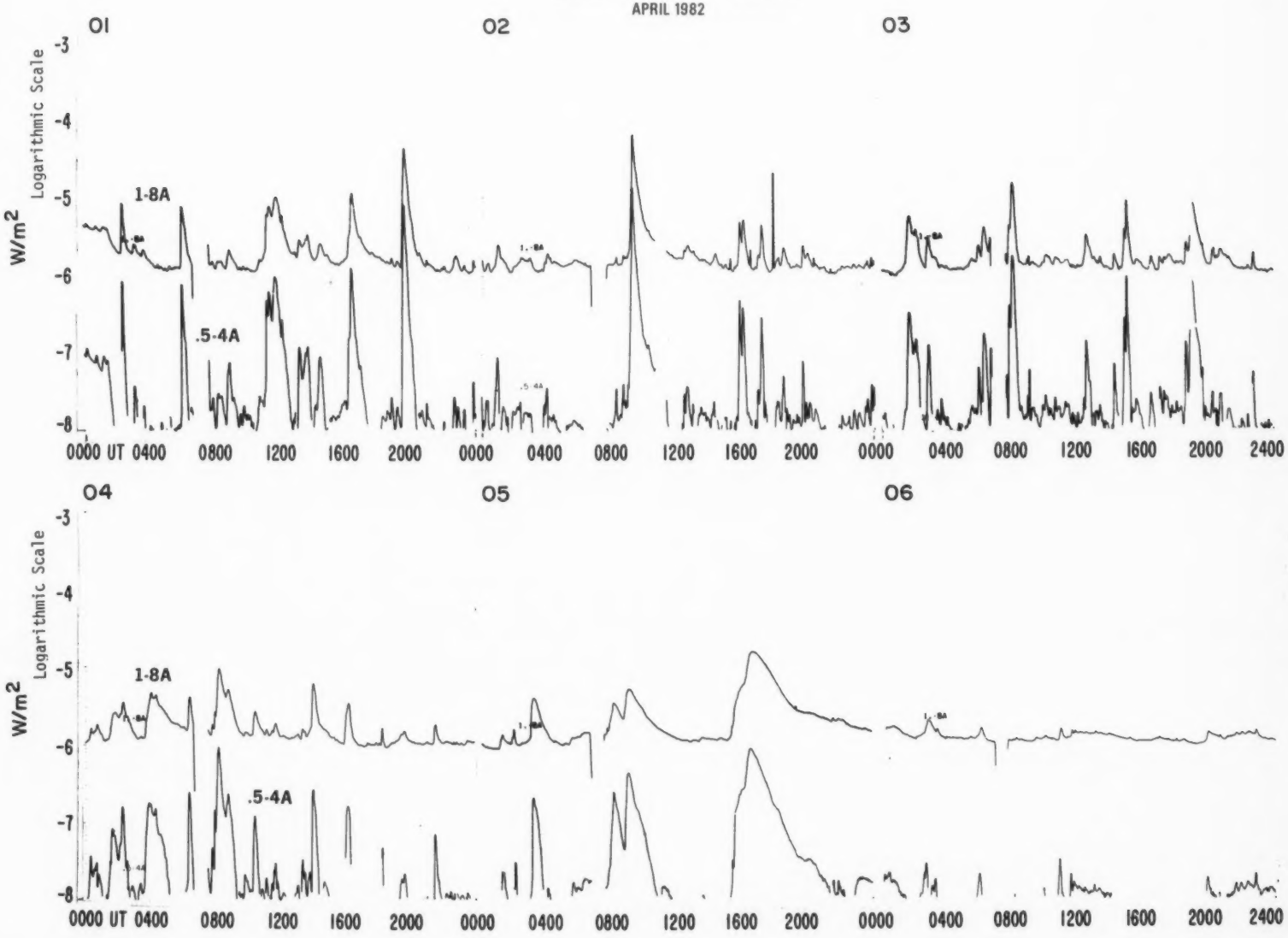
IMP 8 SOLAR WIND PLASMA

APRIL 1982



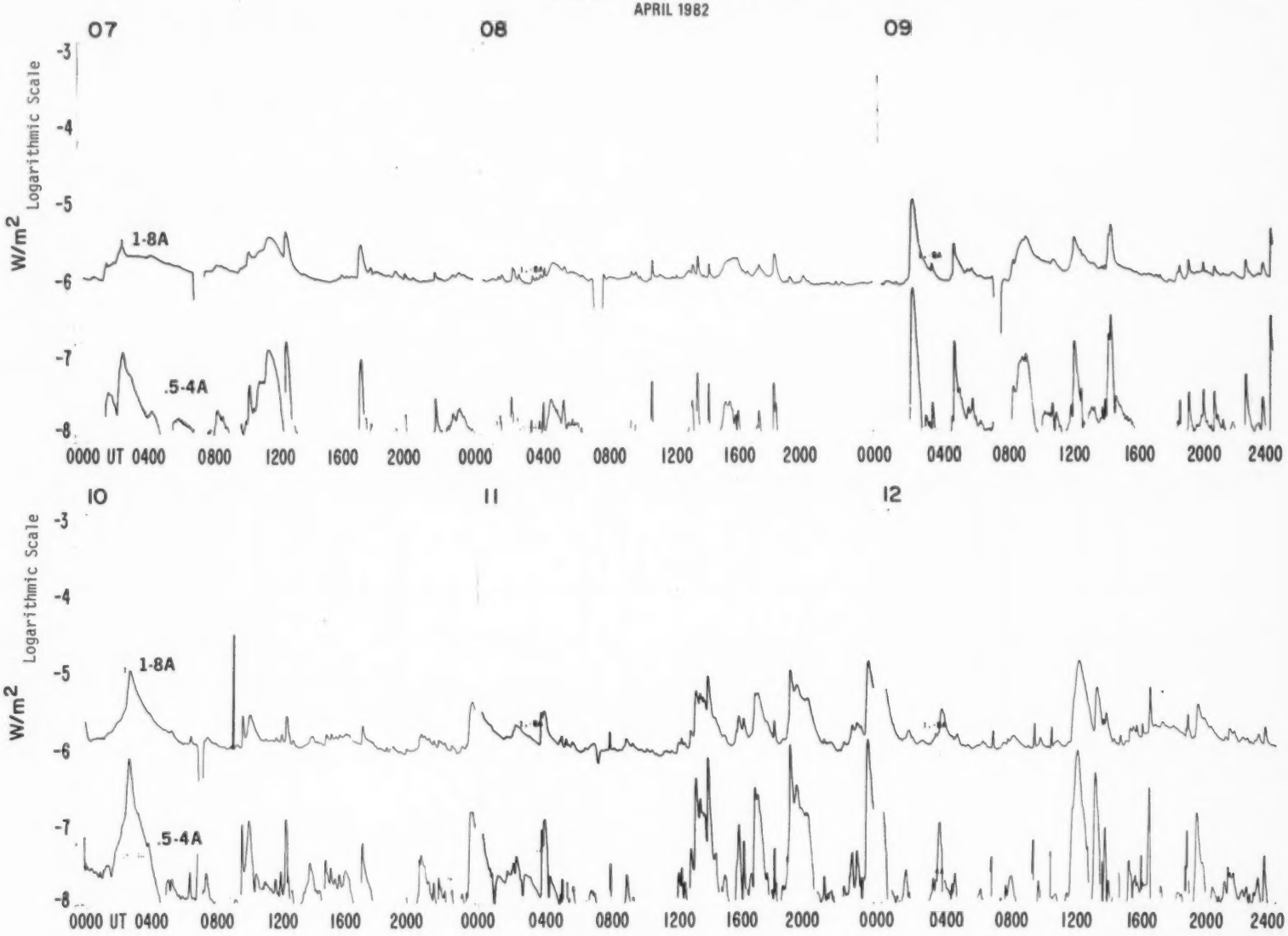
SMS-GOES X-RAYS

APRIL 1982



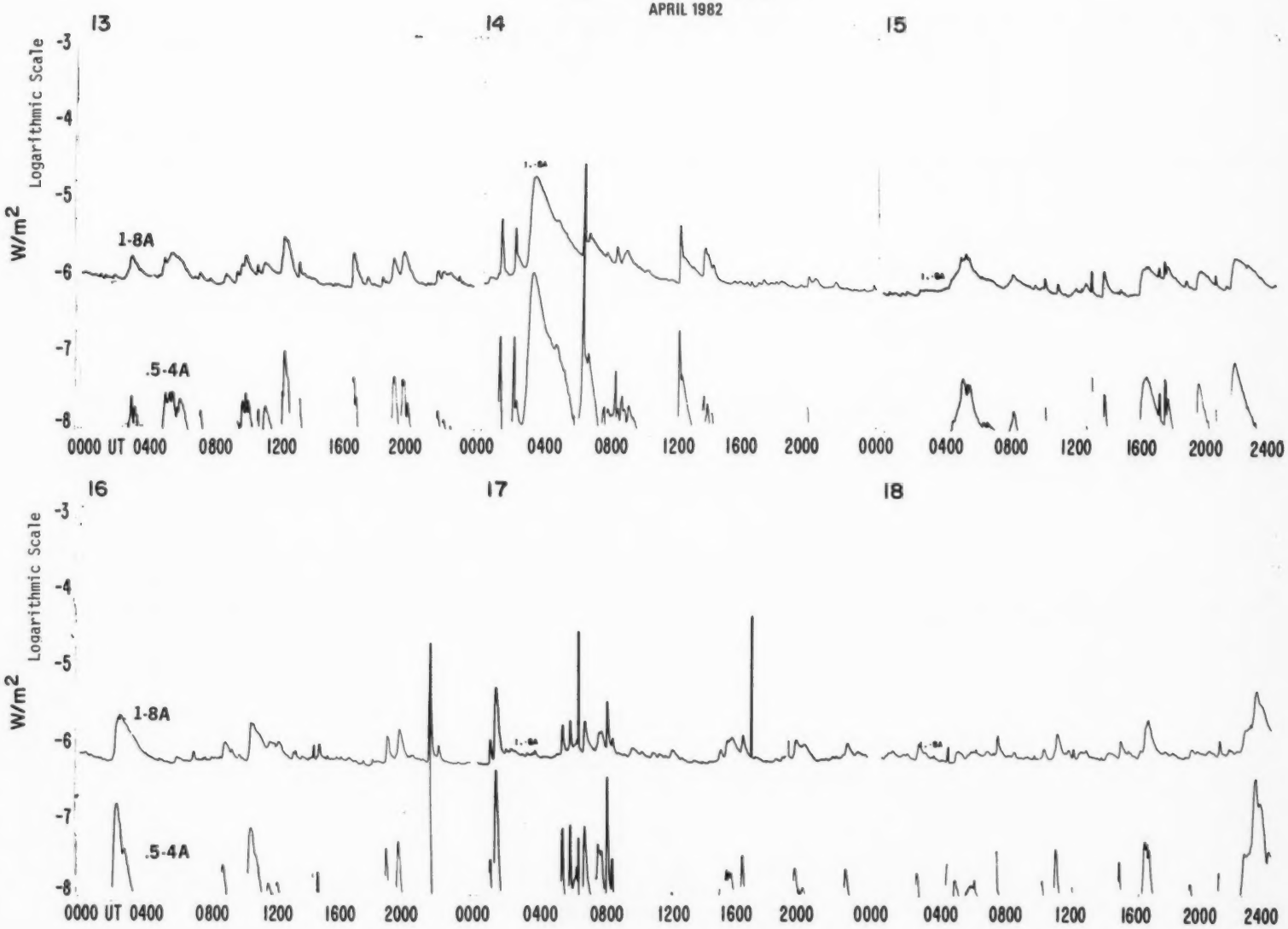
SMS-GOES X-RAYS

APRIL 1982



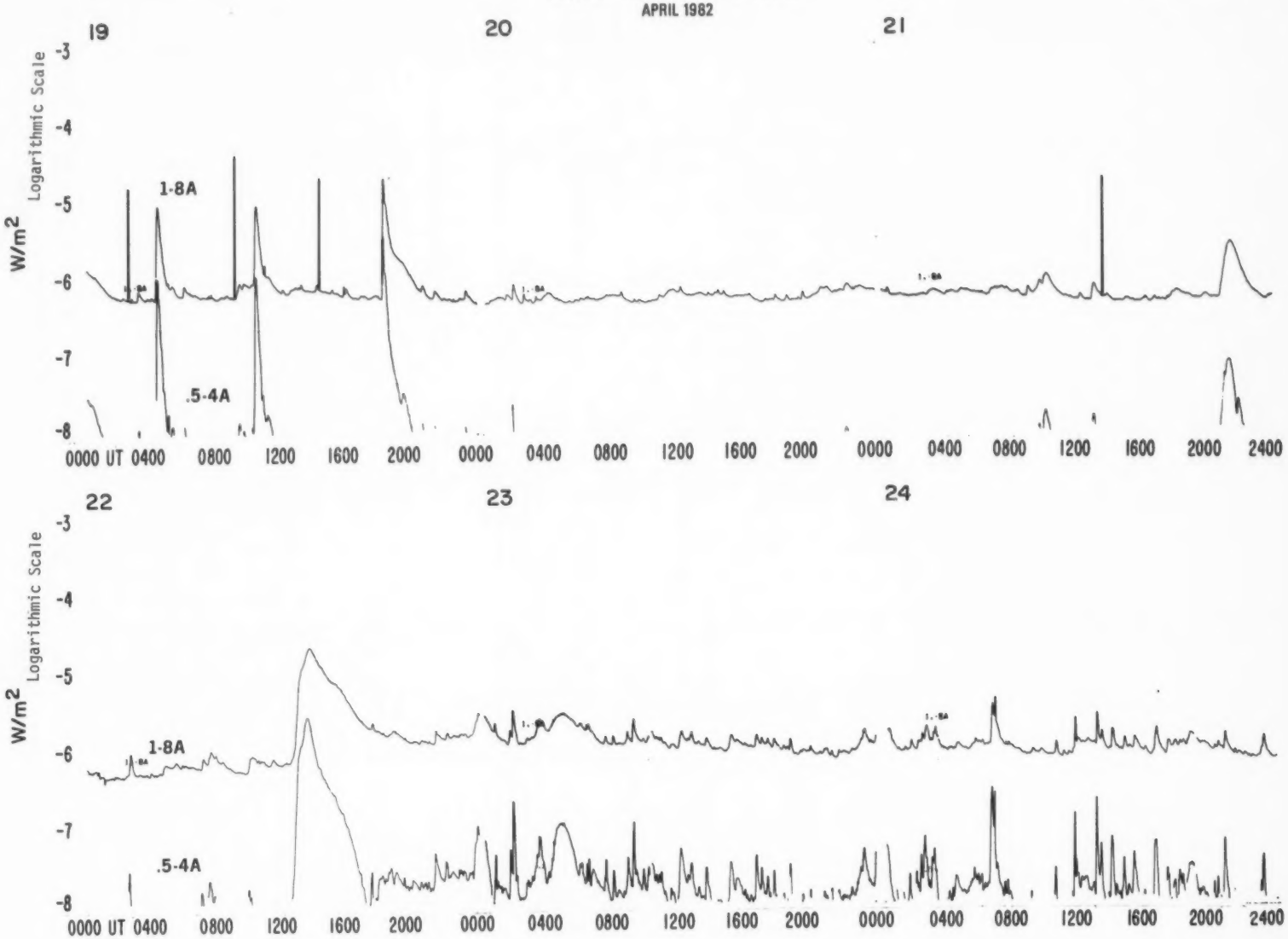
SMS-GOES X-RAYS

APRIL 1982



SMS-GOES X-RAYS

APRIL 1982



SMS-GOES X-RAYS

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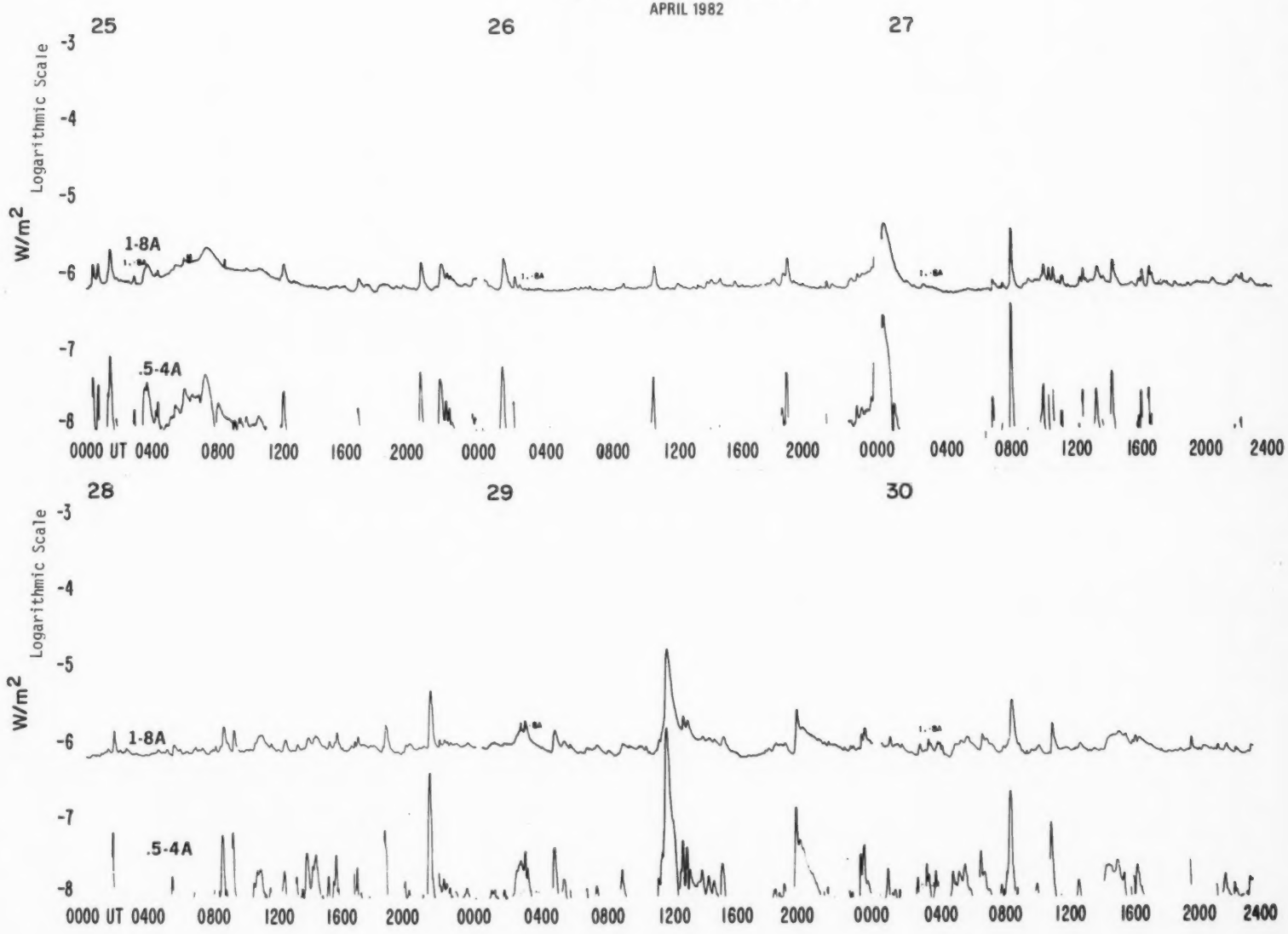

MASS EJECTIONS FROM THE SUN

April 1982

Sta	Day	Observed UT Start	Max	End	Location RA°	R/R_o	Freq or Wavelength	Kind of Event
HARV	Apr 01	1937		1945			Meter	II
PALE	Apr 01	1938.5		1945.0			Meter	II
WEIS	Apr 02	0911.3		0920.7			40-320 MHz	II Harmonic
LEAR	Apr 02	0912.6		0920.1			Meter	II
GEOR	Apr 04	1255		1303	284		H-alpha	Weak Surge
HARV	Apr 04	1405		1412		---	Meter	II
WEND	Apr 04	1548	1608	1637	283		H-alpha	S
WEND	Apr 05	1450	1555	1648	290	1.00-1.40	H-alpha	Q
HARV	Apr 05	1615		1620			Decimeter; meter	IV
CULG	Apr 07	0256.5		0258			Meter	Possible II
WEIS	Apr 07	1229.0		1233.0			70-140 MHz	II Harmonic
CULG	Apr 10	0220.5		0221.5			Meter	Possible II
WEIS	Apr 10	0942.7		0951.7			40-140 MHz	II Harmonic
HARV	Apr 12	1902		1920			Decimeter	IV
LEAR	Apr 14	0234.6		0310.3			Meter	IV
WEND	Apr 16	0655E		0805D	065	1.30	H-alpha	Q
WEND	Apr 16	1422	1427	1438	272	0.99-1.07	H-alpha	S
HARV	Apr 18	2313		2329			Decimeter; meter	IV
HARV	Apr 19	1812		1825			Decimeter; meter	IV
HARV	Apr 22	1307		1327			Decimeter; meter	IV
WEIS	Apr 22	1332.6		1346.3			Meter	II
HARV	Apr 22	1442		1445			Decimeter; meter	IV
ABST	Apr 25	0506	0514	0615	062	0.70	H-alpha	Q
GEOR	Apr 29	1023E		1034	245		H-alpha	Weak Surge

QUALIFIERS ON START, MAX AND END TIMES
D = event ended after tabulated time
E = event began before the tabulated time
U = uncertain time

TYPE OF EVENT
A = eruptive active region prominence
CB = coronal cloud bubble
D = coronal depletions
E = coronal enhancement
EL = coronal expanding loop
II = Type II radio burst
IVm = moving Type IV radio burst
Q = eruptive quiescent prominence
R = coronal ray or streamer
S = flare-surge if there is a known flare association
SP = flare-spray if there is a known flare association
* = movement may be caused by ionospheric refraction

REPORTING STATIONS
ABST = Abastumani
BIGB = Big Bear
BLEN = Bleien
CULG = Culgoora
DWIN = Dwingeloo
GEOR = Georgiana
HALE = Haleakala
HAOC = High Altitude Observatory's SMM Coronagraph/Polarimeter
HAOK = High Altitude Observatory's MARK-III Coronameter at Mauna Loa
HARV = Harvard (Fort Davis)
KHAR = Kharkov
LEAR = Learmonth
LVOV = Lvov
MANI = Manila
MITK = Mitaka
NRLC = Naval Research Laboratory's White-Light Coronagraph Experiment on P78-1
PALE = Palehua
SGMR = Sagamore Hill
TELV = Tel Aviv
VORO = Voroshilov
WEIS = Weissenau
WEND = Wendelstein
UDAI = Udaipur

NOTE: Because only a small fraction of the data taken by satellite-borne coronagraph had been analyzed at the time this table was assembled, many events are defined solely by ground-based observatory reports.

MISCELLANEOUS DATA

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ACTIVE REGIONS

CARRINGTON ROTATION 1717

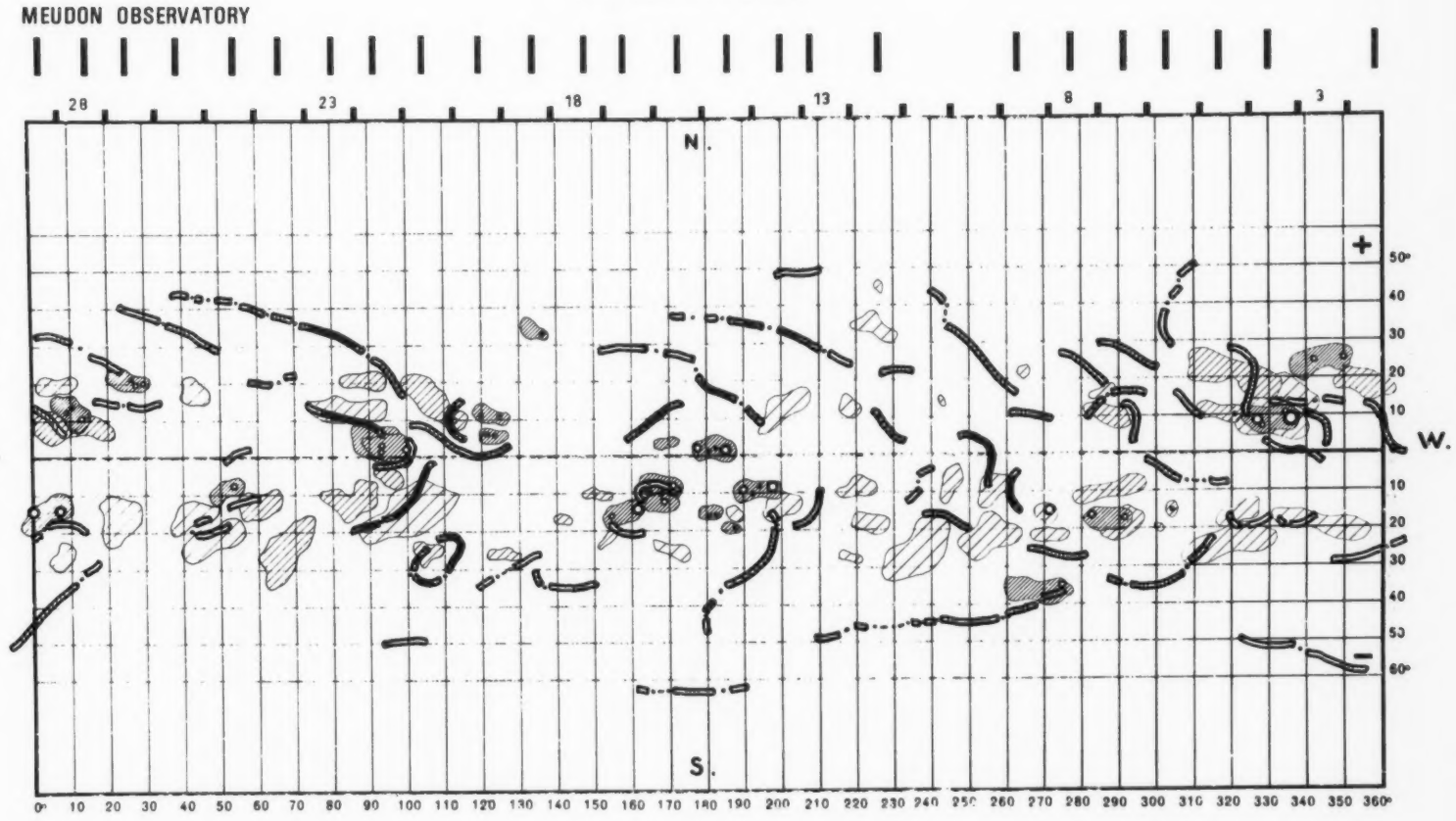
(January 2-29, 1982)

Region No.	Coordinates Lat.	Long.	IMP	Age at CMP	Spot-less Region	Region No. in Rotation 1716	Activity at West Limb
1	19°N	356	1	>6	x		dispersed
2	26°N	345	4	>6			decreasing
3	10°N	332	1	>6	x	5	disappeared
4	10°N	332	6	+2			decreasing
5	16°S	323	1	>6	x		disappeared
6	23°N	323	1	>6	x	6	decreasing
7	23°S	320	1	>6	x	7-9	dispersed
8	11°N	318	2	>6			decreasing
9	14°S	305	2	>6			decreasing
10	18°S	291	1	>6	x		decreasing
11	9°S	288	1	>6	x	14	dispersed
12	17°S	288	4	-2			stable
13	11°N	288	1	>6	x		dispersed
14	17°N	286	1	+2	x		dispersed
15	21°S	272	1	>6	x		dispersed
16	15°S	271	3	>6		19	decreasing
17	36°S	269	2	>6			decreasing
18	8°S	256	1	>6	x	21	dispersed
19	21°S	256	1	>6	x	20	decreasing
20	7°S	246	1	>6	x		dispersed
21	17°S	224	1	>6	x		dispersed
22	8°S	221	1	>6	x		dispersed
23	27°S	219	1	>6	x		disappeared
24	9°S	194	4	-1			stable
25	15°S	188	1	>6	x		decreasing
26	19°S	187	2	-2			decreasing
27	3°N	183	5	+2			decreasing
28	15°S	182	2	0			decreasing
29	4°N	170	1	-1	x		stable
30	7°S	168	3	>6			decreasing
31	12°S	168	3	>6			decreasing
32	14°S	159	4	+4			decreasing
33	22°S	154	1	0	x		dispersed
34	10°S	151	1	+4	x		decreasing
35	16°S	142	1	+5	x		dispersed
36	35°N	134	2	0			decreasing
37	25°S	126	1	>6	x		dispersed
38	6°N	123	2	+4			dispersed
39	12°N	123	2	-1			decreasing
40	15°N	107	2	>6		35	decreasing
41	25°S	105	1	6	x		dispersed
42	3°N	96	4	0			stable
43	5°S	95	1	6	x		decreasing
44	4°N	92	1	6	x		decreasing
45	21°N	89	1	6	x		decreasing
46	12°S	85	1	6	x	42	decreasing
47	13°N	84	1	6	x		decreasing
48	24°S	67	1	6	x	41	decreasing
49	12°S	61	1	6	x	45	decreasing
50	8°S	51	2	+4			decreasing
51	22°N	25	3	+3			decreasing
52	10°N	10	1	6	x	52	dispersed
53	13°N	10	3	+1			stable
54	14°S	3	5	+3			decreasing

SYNOPTIC SOLAR MAP

CARRINGTON ROTATION 1717

JANUARY 2 - 29, 1982



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Misc
Jan 82

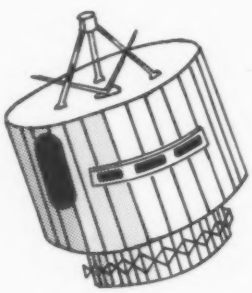
DATA ANNOUNCEMENT

SPACE ENVIRONMENT DATA from the SMS & GOES SATELLITES

The Space Environment Monitor instrument package on-board all SMS/GOES satellites has provided magnetometer, energetic particle, and soft X-ray data continuously since July 1974. Two SMS/GOES satellites operate simultaneously in the Earth's equatorial plane. They travel in geosynchronous orbit (6.67 Earth radii) and are generally located at 75° and 135° west longitude. This trajectory allows the detectors an unobstructed view of the Sun for all but the few dozen hours per year that the Earth eclipses the Sun. The time resolution for all three sensors is approximately 3 seconds, which permits one month's data from each sensor to be stored on a single 9-track, 1600-BPI, binary tape. Plots are available on microfilm.

MAGNETOMETER

A twin fluxgate spinning sensor allows representation of the Earth's magnetic field in three mutually perpendicular components: H_p, H_e and H_n. H_p is parallel to the satellite spin axis, which is itself perpendicular to the satellite's orbital plane. H_e lies parallel to the satellite-Earth center line and points earthward. H_n is perpendicular to both H_p and H_e, and points westward. Field strength changes as small as 0.2 gamma can be measured.



PARTICLE DETECTOR

Solid state detectors with pulse height discrimination measure protons from 0.8 to 500 MeV, alpha particles from 4.0 to 392 MeV, and electrons with kinetic energies greater than or equal to 2.0 MeV. Since solar protons and alpha particles in these energy ranges accelerated in solar flares can reach the vicinity of Earth, they pose a hazard to manned space flight and to high-altitude aircraft. They can as well significantly affect the high-latitude ionosphere.

X-RAY DETECTOR

Ion chamber detectors provide whole Sun fluxes for the 0.5-to-4 and 1-to-8 Angstrom X-ray wavelength bands. These observations furnish a sensitive means of detecting the start of solar flares and thereby changes in the dayside ionosphere.

Address your inquiries to Mrs. Viola Miller, National Geophysical Data Center, NOAA code D631, 325 Broadway, Boulder, Colorado 80303, USA (Telephone (303) 497-6136, FTS 320-6136).